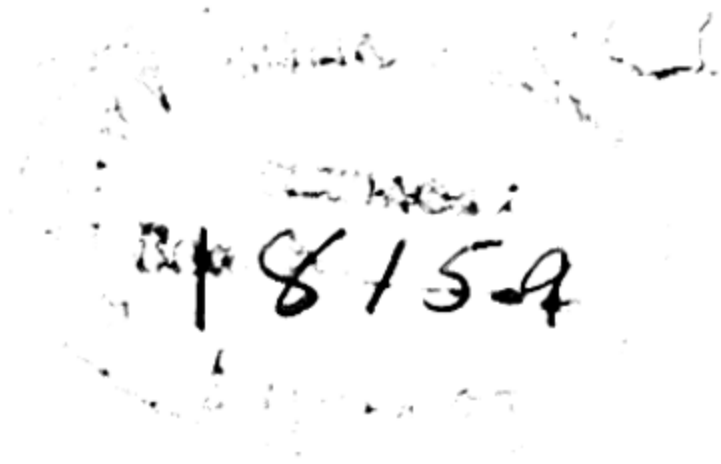


**STATE AND INDUSTRIALISATION OF
DEVELOPING COUNTRIES WITH
SPECIAL REFERENCE TO INDIA**

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SPECIAL REFERENCE TO INDIA



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STERLING PUBLISHERS (P) Ltd.

DELHI-6.

JULLUNDUR CITY

*State and Industrialisation of Developing Countries with
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by Dr. Kumar Ramchandra Prasad Singh

STERLING PUBLISHERS (P) LTD.

Jullundur City : 695, Model Town

Delhi-6 : 3640, Mori Gate

330.954
45

Price : Rs. 15.00

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Dedicated to revered 'Dada'
Shri Krishna Mohan Pyare Sinha, M.L.C. (Bihar)
Ex-M.P. & M L.A.
Member of the Syndicate,
Bhagalpur University

PREFACE

The present work is an analytical study of the role of State in the industrial development of developing countries. The essence of economic development of a developing country consists essentially in the growth of industrialisation. This is because the development of agriculture is not enough, that industry and agriculture are interdependent, that industrialisation gives mankind greater control over its environment; increases its freedom, enables it escape drudgery and servitude; provides leisure and luxury and yet gives larger employment; that it extends the scope of human choice and makes for a rise in standard of living; that it strengthens our defence potentiality, a point which has been growing more and more important since the time I undertook this work. Thus the study is a fascinating exercise in the economics of growth.

In the industrialisation of underdeveloped countries, the State has to play an important part. This is because of the desirability of rapid industrial growth with various kinds of obstacles in its way and State's advantageous position *vis-a-vis* private sector in removal of these obstacles, shyness of local capitalists towards schemes of industrialisation; State's advantageous position which enables it to allay the fears and apprehensions of the likely foreign investors and most important of all the necessity and desirability of balanced economic growth and the State's role in ensuring it and avoiding lopsided development. The change in the very concept of State and our own professed aim of a socialistic pattern of society demand a positive role for the public sector in giving a definite direction to the process of industrial growth. It is for the State to change the direction and accelerate the rate of growth. But there is the need for keeping a thorough watch over the industrial endeavours and economic manoeuvres of the State because these entail heavy public expenditure and there is always the danger of

inefficiency. Lastly, there are some significant physical, institutional and other barriers to the rapid industrialisation of backward areas which can be removed only by the State.

In pre-independence era, little effort was made in India by State for industrialisation. Whatever effort was made was causale and haphazard. A few scattered industries such as Tatas were developed by private enterprise but there development had much to do with the State. There was no conscious and planned policy of industrial development on the part of the State. So my interest lies in studying the problems of the post-independence period.

The work has been divided into seven chapters. The first chapter deals with the rationale of rapid industrialisation and with the study of the costs of industrialisation. The second chapter summarises some of the widely held views on obstacles to the industrial growth of an underdeveloped economy, and discusses the role of State in removing these obstacles. The third chapter picks up the thread of the earlier chapter and discusses the role of State in creation of proper atmosphere for making industrialisation a rapid process.

The fourth chapter deals with the manifold aspects of the problems of financing the industries of underdeveloped countries with special reference to India. Suggestions have been made at the end of the chapter for policy-making and improvement in the present system of financing.

In the fifth chapter, I have tried to examine and analyse how State paternalism has helped the growth of industry in some important countries of the world. The sixth chapter is devoted to what is being done by State in India to speed up industrialisation of the country.

The last chapter sums up the conclusions of this study.

FOREWORD

Dr. Kumar Ramchandra Prasad Singh has written a very useful book, on the role of State in the industrialisation of developing countries. He writes particularly in the context of India but he has drawn on the experience of a number of other important countries. Though this role, as Dr. Singh points out, has differed from country to country, everywhere. State action created conditions for industrialisation and facilitated it. The scope was, of course, limited in the first industrial revolution which took place in the world, but in all subsequent repetitions of the process in the nineteenth century, the role of the State was far more extensive and significant. In the industrialisation which took place in the twentieth century, and is now taking place, the process was initiated and led by the State; and much of its success and failure as well as the manner of the effort may well be attributed to the role of the State.

Dr. Singh rightly thinks that industrialisation is a basic condition for the growth of all under-developed countries which are by and large primarily agricultural, and where agricultural growth too would come from industrial growth. In the balancing of growth in these two important directions as also in different sub-sectors of these two areas, State has to play a decisive part. Growth could partly be left to private enterprise in mixed economies, but a balance in growth could not come about without State action and intervention. Balance would result if the State is prepared to undertake the development of infra-structure and imaginative promotion of private sector, and more often than not, of a large public sector consisting of a large number of other industries. Similarly the state will have to make the important technological choices and foster many industries of capital-saving and labour-intensive kinds through careful promotion of such industries and regulation of the traditional forms of large scale industrialisation in order to assure full employ-

ment in countries with large populations.

Dr. Singh also emphasises the very important role the State plays in modifying the institutional framework in which the economy operates and in inculcating in the people 'a reasoning attitude towards life, nature, religion, and social relations' (p. 22) through legislation or education as the case may be. Any lag on this front, as one may see in the case of India, can significantly affect the process of economic growth and of industrialisation.

There are many other things which the Government can do such as making people aware of the growth possibilities, seeking foreign assistance of the right kind and on right terms, exploration of export markets and promotion of exports, reconciliation of the private and public sectors, equitable distribution of the burden of industrialisation, insisting on agricultural growth before industrialisation etc; and which Dr. Singh points out; but two things which he mentions, I would like to underline: "Another major error in industrialisation often emanates from small and poor nations" insane fancy or craze to copy big and rich nations. Often poor and small nations too attempt to have too many large and complex industries too fast. But they fail to realise that what makes economic sense in large rich country may prove to be economic nonsense in a comparatively small poor country" (p. 142). Though the argument is not meant for a large economy like ours, this cautionary advice is one which our planners and economists might as well ponder over. The other observation comes on page 50 the truth of which is amply borne out by our experience of the recent vastly extended role of the State in Indian industrialisation: "Much will depend upon the integrity and efficiency of the administrative machinery of the Government." Though I am quoting this line somewhat out of context this is, I should think, what ought to underline or qualify one's whole approach to the relation between the State and the process of industrialisation and social change. Continuous improvement of the quality, efficiency and integrity of the machinery of the Government should therefore be one of the principal tasks

of the process of economic growth and social change, as it is in its turn, the main instrument in the hands of society to bring them about.

Mr. Singh's book will be an important addition to the library of all students of economics and of great use to all those interested or involved in the process of industrialisation either as civil servants or as managers of industrial undertakings.

Bhagalpur University
19th January, 1969

Narmadeshwar Jha

ACKNOWLEDGEMENT

The writer's acknowledgement, somewhat wishful acknowledgement, is due to late Dr.B.R.Mishra, M.A., Ph.D.(Lond.), D.Sc. (Econ.) Lond., Vice-chancellor, Bhagalpur University, who earlier guided his doctoral dissertation and encouraged the writer to take up this independent research work but who did not remain to see this finished product. The writer is no less obliged to his revered teacher, Dr. R.N. Tripathy, Ph.D. (Lond.), University Professor and Head of the P.G. Department of Economics, Ranchi University, Ranchi, and to Professor Mohd. Shabbir Khan, Head of the Department of Economics, Muslim University, Aligarh, who have been the constant source of inspiration and guidance to him.

The writer feels deeply obliged to his wife Suniti and to his dear student Shree Siya Sharan Sinha, M.A. Final (Econ) who have immensely contributed to the preparation of the manuscript in many ways and without whose help it would have been extremely difficult to prepare it.

Last but not the least, the writer is grateful to Mr. S.K. Ghai, Managing Director, Sterling Publishers (P) Ltd. for his kind and generous cooperation in seeing this book through the press.

1

A CASE FOR INDUSTRIALISATION OF UNDER-DEVELOPED COUNTRIES

[BY THE term under-developed area we generally mean areas with low levels of income and capital per head of population. These are much lower than the standards reached in North America, Europe, Australia and New-Zealand. No large scale application of the fruits of scientific and technological advance to agriculture and industry is to be found in under-developed areas. In such areas subsistence production predominates. Manufacturing industry is comparatively insignificant in such areas. The term as defined above covers the whole of Asia (with the possible exception of Japan), most of Africa, Latin American countries (with Argentina as exception) and parts of Eastern Europe and Southern Europe. In this way under-developed areas contain about three quarters of the world population.

Industrialisation has become the magic word of the mid-twentieth century and industrial development of the under-developed countries has become one of the great world crusades of our times. They hope to find in it a solution to their problems of poverty, insecurity, overpopulation, backwardness, etc. They consider it to be a panacea for all the evils of their social and economic life. In fact the essence of economic development of an under-developed country consists essentially in the growth of industrialisa-

tion. This is because the development of agriculture is not enough ; that industry and agriculture are interdependent ; that industrialisation gives mankind greater control over its environment ; increases its freedom ; enables it to escape drudgery and servitude ; provides leisure and luxury and yet gives larger employment ; that it extends the scope of human choice and makes for a rise in standard of living ; that it strengthens our defence potentiality, a point which has been growing more and more important day by day. Thus the study of the process of industrial development of an under-developed country is a fascinating exercise in the economics of growth.

✓ Once Jawaharlal Nehru remarked "Real progress must ultimately depend on industrialisation." The under-developed countries have long been mainly producers of raw materials, and they have observed that there is a strong and positive connection between the wealth and standard of living of a country and the extent of its industrialisation. They also say that prices of raw materials fluctuate much more than the prices of manufactured goods. ↗ They think that industrialisation will lead to greater security, stability, a higher standard of living, increasing labour productivity, etc.

Those who jump to the conclusion that industrialisation is the answer to their problems are partly right and partly wrong. They are right because industrialisation is really full of a good many obvious advantages. But they are wrong if they assume that industrialisation is the panacea for all the social and economic evils ; if they think that any kind of industrialisation will serve their purpose ; if they think that benefits of industrialisation flow more or less automatically from investment in industrial projects. They are also wrong if they think that even a small country can afford to go very far in achieving self-sufficiency. Generally, it is unwise to assign industrial development the top priority position in a development programme in its early years.

But before finding out the right place of industrialisation in the development programme of an under-developed country let us discuss in detail the rationale of (case for)

industrialisation in an under-developed country.

↳ Rapid industrialisation is undertaken by countries to secure the benefits of industrial and economic growth. It is often argued that industrial growth increases wealth and this in turn leads to greater happiness. So they correlate wealth and happiness and argue that greater amount of happiness is the natural outcome of industrial and economic growth.) But there is no denying the fact that there is much greater mental disturbance in the United States of America than anywhere else. Higher suicide rates are often connected with the drive for greater wealth in an already wealthy country. So the benefit of industrialisation and economic growth is, not that they increase human happiness, as [Professor W. Arther Lewis rightly points out, but that they increase the range of human choice. They give man greater control over his environment, and thereby increase his freedom. They have made human beings escape many of nature's menaces and enabled them to escape from death, drudgery and servitude.]

↳ Industrial growth permits us to have more of leisure as well as more of goods and services. In under-developed areas approximately seventy to seventy five per cent of the people are needed in agriculture to produce food. But in industrially advanced countries only twelve to fifteen per cent of the population suffice to give a standard of nutrition twice as good. Hence industrially advanced countries can spare more people for other activities. They can be teachers, doctors, entrepreneurs, entertainers, engineers, and so on. In addition, society can afford the luxury of developing fine arts mainly when industrialisation permits it to spare increasing numbers from the basic task of growing food. Increasing flow of goods and services often follow rapid industrial growth. Similarly, we have more of leisure in an industrially advanced than in an industrially backward country.

Men may afford to discuss the desirability or otherwise of industrial progress, but for women to debate whether it is good or bad is to debate whether they (women) should have an opportunity to cease to be beasts of burden and partici-

pate in the manifold activities of the human race. As industrialisation grows women gain freedom from drudgery and are emancipated from the seclusion of the household. In industrialised communities women are no longer required to grind grains for hours, to walk miles to fetch pails of water or to spin and weave. All these are done with greater specialisation and greater capital. So women, who gain a chance to become full human beings, benefit from industrial growth even more than men.

✓ The more we industrialise the greater is the scope for mankind to indulge in the luxury of humanitarianism. In poor countries the weak and the destitute must go to the wall because there is very little to spare for those who cannot help themselves. It is usually when industrial growth permits us to have enough of goods and services that we take increasing care of the victims of chance like the blind, the leper, the crippled, and the like. An industrial society can display greater humanitarianism just because such a society possesses enough means to spare for the purpose. So other things being equal the widow, the orphan, the unlucky, the blind, the sick, the leper, the crippled, the disabled and the incompetent have a better place to live in an industrially and economically advanced country than in an under-developed society. But this line of argument can hardly have any weight with those who consider it against the eugenic interest of the community to help such persons. They argue that unless sterilised such people will in the long run reduce the biological vigour of the community at large. But people having such opinion are yet in a minority.

✓ Though not always, but usually industrial and economic growth creates conditions which prove helpful in diminishing strife in a community where political aspirations are currently in excess of resources. In an industrially stagnant economy the income per head is almost stable and therefore the desire of one group to have more of material pleasure can be met only at the expense of the other groups. This is bound to give rise to civil strife. The solution of the problem lies in the growing pace of industrialisation which will bring resources nearer to

aspirations. This is the panacea which will enable mankind to escape from the bitter civil strife which is otherwise inevitable. Besides, this disproportion between resources and aspirations is of much significance even in the context of the political attitudes and aspirations of countries of low international status. Colonial countries and even many independent countries with low level of industrialisation and low per capita real income are really very anxious to industrialise rapidly because it will enable them to have a higher status in the counsel of nations. They think like this. Increasing industrialisation results into increasing wealth. Increasing wealth adds to the power and prestige of a nation. It ultimately means that there would be more respect for them and their way of life and they will, therefore, count for more in international affairs. Without going into the merits and demerits of this line of thinking, at least this much can be said that industrial growth satisfies this vanity of the under-developed countries. Besides, it will not be out of place to mention that industrialisation by reducing the range of disparities in the standard of living of the people of different countries reduces the chances of war which is often provoked by great differences in the wealth and economic and industrial growth of different nations.

✓ In under-developed countries human and material resources are usually found to be unemployed or underemployed on a significantly large scale. They cannot be all absorbed in the agricultural sector. They can be more fruitfully employed only when an under-developed country resorts to industrialisation. The longer they remain unemployed and under-employed, the greater will be the loss to the country. In addition, industrialisation reduces the pressure of population on land and leads to larger holdings and better farming. As the pressure of population on land is reduced by transferring the extra labour force from the agricultural sector to the industrial sector it will become easier to gainfully resort to mechanisation. Agricultural productivity could be raised by the use of non-labour inputs like machine, fertilisers, pesticides, and the like. Besides, almost all of these non-labour inputs are the profits of industrialisation.

✓ Industrialisation, moreover, raises the production of manufactures which ultimately leads to a rise in the standard of living of the people of under-developed areas.

✓ Last but not the least, industrialisation strengthens the defence potentiality of an under-developed country in many ways. Without industrialisation we cannot think of producing the modern implements of war. These implements have become necessary evil these days because of the mad race for armament. Even the firm believers in love and non-violence will not deny the fact that in this war-torn world a minimum of war implements is rather indispensable. And these have to be produced by the indigenous industries because sole reliance on foreigners is day by day becoming risky for reasons more than one. So industrialisation is rather necessary even for the defence needs of an under-developed country.

✓ As regards the place of industrialisation in a development programme it may be remarked that industrial development has a necessary and, ultimately, a large role to play in almost any sound development programme. But if decisions are made on the basis of a thorough study of the economic costs and benefits involved, the part of industrial development, particularly in the very early stages of a country's economic growth, is likely to be relatively small in the total programme of development. History bears witness to the fact that we cannot neglect agriculture. It should not be overlooked by those who seek to hasten the economic development of an under-developed economy that they cannot and should not think of industrial progress at the cost of agricultural advance. Development of both these sectors (industrial and agricultural) is very closely interwoven and each must depend heavily on the other. So advocacy of industrialisation does not and cannot mean stricture on agriculture.

It may be suggested with confidence that in the earliest stages of development suitable assistance to agriculture may serve as the best safeguard for the establishment and growth of a viable industrial sector. Instances are not lacking when in some countries the way for the establishment and growth of industry has been fostered by the past growth and improve-

ment in agriculture. The economic historians have traced that the leading industrial countries of the world were once predominantly agricultural and it was the prosperous and expanding agriculture which formed the basis of the establishment and subsequent development or expansion of their manufacturing industry. The agricultural sector can serve in various ways. The sector can provide a large part of the sustenance of the growing urban population; it can supply a market for manufactured goods purchased out of higher real income; and can serve as a source of capital for industry through the medium of capital accumulated by traders. It can also supply a source of foreign income to pay for imported capital goods for the manufacturing industry.

The growth of manufacturing industry is further promoted by the extension of the production of cash crops. Increasing production of cash crops results in the growth of the exchange economy, acquaintance of a large section of the population with the ways of such an economy, provision of opportunities to persons with administrative and entrepreneurial skills, and supply of substantial revenue to State. All these combined together promise promotion of the growth of manufacturing industry. A study of the current history of economic development of under-developed areas reveals that most of these processes are at work in a number of developing countries. This line of argument may very well be deduced by the remark that though in the short run each sector competes against all others for limited resources and any assistance given by government to a particular sector of the economy is at the expense of the other sectors, in the long run the different sectors of an economy are so much inter-related that growth in one sector will definitely raise the level of generally available resources and promote the growth in other sectors. Therefore, agriculture and industry may be competitive in the short run but will be complementary over a relatively long period. When objective is growth, particularly a growth which can sustain itself, it is the long run and not the short run which would be given prime consideration and importance. Agriculture and industry are but the twin sisters of a national

economy.

While chalking out the programme of economic development a developing country needs to arrive at realistic targets of total government and private investment during the coming five years or so, and an approximate evaluation of how the total should be distributed to get maximum results. It does not mean that it is just a matter of comparing the value of investments in agriculture and industry with the value of investments in health, education, transportation, power, highways, and all the other areas. Nor is the problem limited only to the comparison of capital investments in one field with capital investments in another. What is required is a weighing of the value of capital-type expenditure with the current type of expenditure for administration, education, health, defence, police services, and the day-to-day operation of other public services. In this process there are no set formulas to help the planners. Essentially it is a matter of setting approximate targets on the basis of opinions which are based on thorough economic analysis. Non-economic considerations should not blur the economic ones. Technically feasible and economically sound projects, founded on considerations of the availability of capital, foreign exchange, management, industrial skills, raw materials, and potential local and foreign markets, should constitute the amount of industrial development. A careful weighing of the country's cost advantages and disadvantages in regard to possible major areas of industrial development is of course very necessary. It is essential to be on guard against a common tendency to put too much money into elaborate industrial projects when it can be more valuable to industrial development if it were put into such fields as education, transportation, and the modernisation of public administration.

In the industrialisation of an under-developed country, the State has to play an important role. This is because of the desirability of rapid industrial growth with various kinds of obstacles in its way and State's advantageous position *vis-à-vis* private sector in removal of these obstacles; shyness of the local capitalists towards schemes of industrialisation; State's

advantageous position which enables it to allay the fears and apprehensions of the likely foreign investors, and most important of all the necessity and desirability of balanced economic growth and the State's role in ensuring it and avoiding lopsided development. The change in the very concept of State and our own professed aim of a socialistic pattern of society demand a positive role for the public sector in giving a definite direction to the process of industrial growth. It is for the State to change the direction and accelerate the rate of growth. But there is the need for keeping a thorough watch over the industrial endeavours and economic manoeuvres of the State because these entail heavy public expenditure and there is always the danger of inefficiency. Lastly, there are some significant physical, institutional and other barriers to the rapid industrialisation of backward areas which can be removed only by the State. But this is not all. State's role has to be discussed in detail elsewhere in this book.

Case for industrialisation of an under-developed country will not be complete if we fail to discuss here at this stage 'costs of industrialisation'. Like everything else, industrialisation too has its costs. If benefits of industrialisation were available without disadvantages everyone would have gone for it. But people differ in their attitude towards growth. They consider the costs of growth in terms of the attitudes it requires and the disturbances it involves in the transitional phase. They may even dislike the kind of society, beliefs, habits, attitudes and institutions associated with industrial growth. People may not thus be prepared to bear the growing pains of the process of industrial growth. They may say that the pace of industrialisation should be slow and gradual. They even hold the view that the benefits of industrial growth are not even worth the cost of the disturbances it involves in the process of change. As a matter of fact they differ in their attitude to industrial growth according to the assessment they make of the benefits and costs of industrialisation.

✱ The economising spirit, which is one of the most important pre-requisites of industrial growth, is often disliked by many people. The economising spirit costs much in nervous

energy and human happiness. It is open to question whether economy is a vice or a virtue. Some people are quite unable while others will refuse to tighten their belt and economise. They despise the restraint which economising spirit puts on consumption. But here it may be remarked that at times the propensity to economise springs from a desire to reduce drudgery and increase the leisure for spiritual pursuits or for enjoyment. It is better developed especially when it is associated with a desire for wealth, either for social prestige or for the power over people which it brings, or for its own sake. Then there are governments which propagate and persuade their people to develop their propensity to save. While the world lasts, there will be no dearth of statesmen and politicians who will not hesitate to make forced savings (through budgetary methods) for the ultimate good of their people.

The second line of attack upon industrial growth derives from its association with individualism. It is correlated with individualism because an individual's contribution to industrial and economic growth is expected to be more if it is to benefit him and his immediate relatives instead of benefitting distant relatives. If he is bound to be a wider net of social obligations his contribution to growth is likely to be less. By and large it holds good. But many people despise this philosophy of life and preach against this attitude towards life. But here it may be argued that it is definitely erroneous to think that the only good things in human relations are extended family relations, tribalism, social status, and political authoritarianism. No doubt the growth of individualism in past has had demerits. But it has had also its bright aspect and has made valuable and liberating influence. So industrialisation cannot be attacked on this score.

Another score on which industrialisation is attacked is its reliance on reason. Without improvement in technology we cannot have industrial growth. But improvement in technology is not possible in absence of a reasoning attitude towards life, nature, religion and social relations. Reasoning attitude is usually incompatible with the acceptance of authority. They erroneously hold the view that reasoning attitude is opposed to

religion and God and therefore, they are opposed to industrial growth which necessitates reasoning attitude. But here it may be remarked that it is hostile neither to God nor to religion but to the claim that a current doctrine is not open to re-examination from the roots upward. Reason erodes authority and not religion. Rational means can hardly succeed in proving or disproving the existence of God. Industrial growth may also be deplored on account of the growth of scale associated with it. Handicrafts give way to division of labour, use of machinery and large scale production. Old handicraft skills are spoilt, giving place to the new machine skills. So the old order changes, giving place to the new. Multiplication and cheapening of output which mass production makes possible fail to console those who are too much given to the old skills and the old craft products. They attack the principle of specialisation itself. Many people think that it requires a great amount of discipline and regimentation and makes life drab and monotonous. It reduces human beings to the mechanical role of cogs in some vast wheel. Besides, they deplore the growth of scale (associated with industrialisation) which ultimately results into the emergence of unplanned towns which can indeed be called slummy, drab, ugly and unhealthy. In addition to all these the growth of scale leads to the growth of the size of the administrative unit. Men are separated from the ownership of their tools. A few command while the majority is made to obey. Administration has to be run on hierarchical lines. Mankind is yet to learn the art of running large scale businesses without creating unrest. In nut shell the community has to bear the growing pains of industrialisation before it gets acclimatised to the new order. But here it may be observed that there is no royal road to growth. Besides, these costs of industrial growth are only short-lived and transitory.

Another line of attack on industrial growth derives from its dependence upon inequality of income. As a matter of fact if we want to have sufficient industrial growth we must introduce differential awards for hard work, for conscientious work, for skill, for responsibility and for initiative. Therefore,

this dependence on inequality of income cannot be denied. It is altogether a different matter whether existing differentials are too great or too small. Similarly there is no harm in altering social institutions (ownership of land, inheritance of property, taxation, educational opportunity, etc.) in ways and to the extent which alter the distribution of income and property without reducing the tempo of industrial growth. Reasonable differentials are those which are just necessary to secure the desired supply of skill and initiative.

The final line of attack on industrial growth is pursued by those who apprehend that continuous industrial growth may rapidly exhaust the world's accumulated stocks of minerals and fuel, leaving very little or almost nothing for the posterity. But such people are probably ignorant of what we are learning about the nature of atom, and about the transformation of one element into another. Besides, they like us to remain poor just in the hope of extending the life of the human race for a century or more. But even if there is some grain of truth in their apprehension it is only the highly industrialised nations of the world (Europe, North America, etc.) who should pay heed to this counsel and stop further raising their standard of living. This counsel has hardly any meaning for the Asians and Africans whose current draft on accumulated reserves is so small.

✓ The conclusion which follows from the above discussion (of the costs of industrial growth) is that abolition of poverty, illiteracy and disease, and achievement of a high industrial growth are not possible without bidding good-bye to most of our old beliefs, attitudes, habits, nature, social arrangements and institutions. The difficulty arises because we want to cling desperately to our old values and at the same time we want to have high level of economic and industrial growth. But we cannot eat the cake and have it too. We can either cling fast to our old and out-dated values or we can have industrial prosperity. Problems of transition have to be faced. Beliefs, habits and institutions have to be transformed. Once the community becomes ready for the growing pangs of industrialisation, a new dynamic equilibrium will be reached. It

will definitely be superior to the old static social equilibrium in every sense. Public memory is very short and, therefore, people will soon forget the painful temporary situations produced by the process of transition. Benefits of industrialisation will surely far outweigh its costs in terms of the attitudes it requires and disturbances it involves in the process of transition. It is really a sheer waste of time, energy and sentiment to regret that some of our long established values and institutions pass away in the wake of industrial upsurge. It is no use trying to put a stop to social changes because these arise just out of those parts of man's nature which distinguish him from the rest of the animal kingdom. So for the sake of progress and prosperity let the old order change, giving place to the new.

2

HINDRANCES TO RAPID INDUSTRIALISATION IN UNDER-DEVELOPED COUNTRIES

(It has been rightly observed that where there are six economists there are seven opinions. Right from Adam Smith down to our own times economists have differed in their opinion about the chief hindrances to rapid industrial or economic growth. To Adam Smith and to a long line of liberal economists the chief obstacle to growth was the absence of the right institutional framework. To them only faulty institutions were inimical to growth. They considered willingness to make effort, to accumulate capital, to accumulate knowledge as the instinctive human reactions. Given the proper institutional framework there was not much to bother about. But to Malthus, what was hindering economic and industrial growth was primarily lack of demand. Malthus meant that there was a low valuation of income in relation to leisure. Even today many economists think like this. Then there is another school of economists who profess that low technological skill is the main stumbling block in the path of industrial progress. While there are also economists who will like to impress that the chief bottleneck is the low level of capital formation in under-developed areas. Those who consider low level of capital formation as the main obstacle assert that as there will be more and more of capital formation, institutions

inimical or hostile to industrial growth will be altered or swept away and new technologies also could be easily made available. Therefore this school fastens upon capital as the main bottleneck and relegates human behaviour and other factors to the background. Finally, there are economists who attach the greatest importance to the natural resources, believing that warranted capital and knowledge will naturally follow. According to them poverty of natural resources sets sharp limit to industrial growth.

As a matter of fact all the obstacles to industrial growth—absence of right institutional framework, proper human behaviour, lack of will to economise, low level of capital formation and dearth of knowledge or technical know-how and its growing application are inter-related. Of course, they may be separated for analytical purposes. Likewise, at some particular time or in some particular place one bottleneck to growth may stand out above all others. Similarly, it may be easier to break this vicious circle of obstacles at one point than at another. It may sometime suit a country to concentrate on removal of one obstacle than of another. But, at best, this can be only a temporary tactic. For example if we succeed in removing one obstacle or breaking one bottleneck, some other obstacles or bottlenecks will come in prominence. If capital becomes available, institutions may lag behind. Or, if institutions are altered, skill may be wanting. If one obstacle is removed, another comes in view. If a reformer is to have full success he must work upon all the factors almost simultaneously. An advance on one front must be backed by advance on other fronts. Truly speaking, social change itself is also cumulative so much so that different factors reinforce each other.

In the discussion of hindrances to industrial growth in under-developed countries human behaviour and institutional framework occupy very key positions. As a matter of fact these are the pivot round which economic growth clusters. The will to economise, capital formation, and progress and application of knowledge are largely influenced by human behaviour and institutional set-up. Differences in human

behaviour are at times responsible for differences in the level of exploitation of natural resources in different countries. Therefore, it is necessary to study the institutions, environments, attitudes, beliefs, habits and nature which are hostile or favourable to the emergence of forces which promote industrial growth. Then the natural corollary of the above study is that one should try to enquire as to what causes people to have one set of beliefs and institutions rather than another set of beliefs and institutions. How do beliefs and institutions change? What is the reaction of growth upon them? Can growth be cumulative? Do we have a logistic curve for growth? If so, why? So a multiplicity of questions arise in the discussion of obstacles to industrial growth.

It may now be discussed how attitudinal and institutional barriers help or hinder the will to economise, the growth and application of new ideas (knowledge) and capital formation. To start with, one may discuss the effect of human behaviour and institutions on economic activity. There will be very little industrial growth where men do not have an eye to industrial opportunities and are not willing to stir themselves to seize them. On the contrary growth will be greatest where men have always an eye to the industrial opportunities and are ever ready to seize them. Why some people or people in one country are more eager to exploit industrial opportunities than others or people in other countries may depend on the differences in their valuation of material goods relatively to the effort required to get them. It may also be due to differences in the extent to which institutions encourage effort. As a matter of fact attitudes and institutions are interdependent and they together influence people's desire to exploit industrial opportunities.

A particular group may have a greater appreciation of material goods and services while another group may have a lesser appreciation of them. Similarly, one group may feel psychologically that the cost of the effort required to get the material goods and services is very high while another group's psychological estimate of the cost of effort to get them may be very low. Lower valuation of material goods and services

may be either due to asceticism or due to a higher valuation of other activities or due to limited horizon. Similarly the cost of effort may be influenced by the attitude to work, the spirit of adventure, and similar other factors.

Ascetic codes recognise special merit in controlling one's natural desires for food, for sex and for other wordly comforts. They stress the value of consuming less than the rest of one's fellows. This way of life is considered to be superior to other ways of life. Fastings and similar other discomforts are considered as means of spiritual growth. It is emphasised that a better use of time can be made in meditation and religious pursuits than in earning one's living. It is often preached that it is better to avoid the temptation of earning a better living for oneself and for the members of one's family because sometimes this temptation brings out aggressive tendencies towards one's fellows. And so it is considered wiser to confine oneself to consuming as little as possible. Often plain living is considered as one of the prerequisites of high thinking. In some parts of the world these things are prescribed only or at least mainly for the priests while in other parts these ascetic ideals are held before the laity as well. Where Hinduism and Buddhism hold sway, ascetic ideals are held before the laity also. So in these countries some people who are attracted to the priestly life might otherwise have pursued a business career instead. Business talents withdrawn from industrial activities in this way may vary from country to country or from time to time even in the same country. It may vary according to the attractiveness of the priestly life and the popularity of the religion and religious leaders.

Any way ascetic ideals are obstacles in the path of industrial progress. But it is safe to assert that this effect is only small. Given the attitude to work a layman hardly feels that his high standard of living will stand between him and his salvation. Besides, religion usually does not deter a man from enjoying a good standard of living provided it is earned without sin. Religion may prohibit people from earning their living by unfair means or in some particular

2. Lack of marketing information.

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ways. Besides, there are some religions (in Africa) which do not expect their priests to be more ascetic than their fellows. Even where religions expect priests to be ascetic, the practice very much differs from the theory. In addition, hardly any religion deters its church from accumulating wealth. Then it appears improbable that the priests will rigidly refrain from using even a part of it.

In most communities attractions of wealth are greater than attractions of asceticism. But inspite of it communities differ in their attitude towards the various uses to which wealth can be put. Attitude towards consumption, savings and investment differs from man to man, from community to community, from nation to nation and even from time to time. At a particular time a particular man or a particular community may feel more inclined to consume than to save and invest. Attractions of conspicuous consumption are well known. Instances are not wanting when goods are desired even though they can not be enjoyed. The literature is full of examples of goods desired for show rather than for personal enjoyment. Even insensitive millionaires own private picture galleries. Pianos are purchased and owned by families in which no one plays on them. Cattle are often kept for exhibiting social status rather than for milk or meat. 'Nouveaux riches' usually fall prey to the habit of such uneconomic displays. The newly rising classes often feel that in absence of such displays they will not get due recognition in their superior status. In colonial countries people indulge in such excessive consumption or display just to show that they are as big or as good as their rulers. But this tendency to show or display or this high propensity to consume reduces the scope of savings. In other words it weakens the will to economise.

The amount of effort made to economise and produce wealth is a function of the desire for wealth. The desire for wealth is itself largely influenced by the relative status of money making and of other activities. The proportion of intelligent and enterprising young men attracted towards economic activity will be determined by the honours and

status which community will assign to the successful organisers of economic activity. In capitalist societies wealth is invested productively whereas in pre-capitalist days it was usually spent in unproductive ways. It makes a great difference to the rate of industrial growth whether rich people invest their incomes in productive activities or spend them on conspicuous consumption. The habit of productive investment is extremely significant for industrial progress.

National aspirations have also produced miraculous effects on a nation's will to economise and invest for industrial progress. Economic history of the U.S.S.R. bears witness to how that country forced through a programme of tremendous expansion at tremendous cost in human misery. While the world lasts there will always be statesmen and politicians who will not hesitate to coerce their subjects for the ultimate good of the coerced or for the fulfilment of the national aspirations with regard to economic strength. Strong force of nationalist aspirations is rapidly wiping out the differences between countries in their attitude to wealth, to saving and to investment.

Probably the most important limitation on men's desire for goods is their limited horizons. The accumulated physical capital, the accumulated cultural capital, social customs, taboos, habits and ignorance are some of chief determinants of the degree of this limitation. The phrase physical capital has been used here in the sense of necessary physical environment for the enjoyment of particular satisfactions. This may be a question of nature or of artifice. For example, people having no access to electricity can hardly require heaters, refrigerators, bulbs, plugs etc. Similarly, furs are not popular at Equator, nor ice creams at the poles. There is not much demand for teachers where there are no schools. Differences in the degree of accumulated physical capital of different countries reflect themselves in the differences in their levels of wants.

The phrase cultural capital refers to the background of knowledge accumulated by the society. For instance the level of literacy in a society will determine its demand for goods

like newspapers, periodicals, books, etc. Similarly the demand for musical instruments and musical entertainments will largely be influenced by the level of the society's culture's musical appreciation.

Likewise, habits, taboos and customs also play a very significant role in determining a society's demand for goods. Similarly, ignorance prevents a man from placing orders for even extremely useful things. Therefore expansion of wants or of desire for goods will be facilitated by the increase in the accumulation of physical, cultural and social capital, and spread of knowledge. Spread of knowledge of new goods is especially significant because it sets in motion the forces that destroy convention or change the physical environment. The speed of diffusion will depend upon the social status of the people who first try the new goods and also upon the relations between the upper and the lower classes. If people of superior status try the new goods first, then the rest of the people will wish to imitate them. Similarly, if people of upper classes live mixed up with the people of lower classes there will be speedy diffusion of knowledge of new goods. On the contrary, if the upper class people live and pass their leisure in exclusively separate places the speed of diffusion will be very slow.

So much for men's desire for goods or attitude to wealth. Next we turn to cost of effort or to men's attitude to the effort required to obtain wealth. The study of the cost of effort is useful and relevant because, inspite of even equal desire for goods people may make unequal effort to acquire them if their attitude to effort is different. Different persons have different prejudices. People may differ in their valuation of leisure, of good relations, of company of friends and relatives. Besides, their attitude to effort may also depend *inter alia* on their physical constitution, on their environment, on their companions in work, on the nutritive value of the food they take, on the energy per unit of time required by the work, on the strain imposed by the work, on the teachings of their religion (whether religious teachings attach more importance to work or to meditation and prayer), on biological differences, on

pleasantness or otherwise of work, on the productivity of the work, on the behaviour of the upper classes to work, on the hours of work, on the climate of the place, on reaction to increase in the productivity of the work, on the ability of those who take the work and on similar other factors. It is needless to explain these factors whose effects on men's attitude to work are well-known. It is not enough that people work for long hours. What is needed is that they should work conscientiously. In other words, men should start their work punctually; should do it properly and to the best of their ability. They are must willing to work when they are ready to work heart and soul. Industrial or economic growth requires that people should be willing to give their best by giving their mind and heart to what they are doing.

Given equal willingness to work, communities make unequal industrial progress if their sensitiveness to industrial opportunities is different. In other words, the spirit of adventure differs from person to person, from community to community and even in the same community from time to time. It depends upon two factors—first, on individual's willingness to manoeuvre economically and secondly, on the scope which the community gives to such individuals (who are ready to manoeuvre economically). An individual's willingness to manoeuvre economically depends upon many variables like willingness to take risks, willingness to face conventions and taboos if they stand in path of risk-taking, and willingness to shift from one place to another if occasion demands so. Prejudices and conventions in relation to family and in relation to livestock are possibly the most deadly contributions of religion to the maintenance of poverty. A staunch Hindu will not ordinarily like to set up a shoe-making factory and will not possibly be ready to utilise the well-known calf-leather for preparing shoes in his factory. Similarly, his family traditions will not commonly permit an upper class Hindu to set up an industrial concern which takes full advantage of the cattle (especially cow) in terms of work, meat, hides, bones, etc. Likewise, in under-developed countries upper class people are generally prejudiced against

manual works, be it in a field or a factory. For instance, in under-developed countries, engineers usually refuse to do work which would soil their hands.

Willingness to bear risk is a resultant of three factors—the temperament of the individual, the financial soundness of the individual, and the tradition in which he has been raised. The temperament of the individual depends *inter alia* on his biological inheritance of the propensity to be industrious and risk-taking. As regards the second factor it may be remarked that the more secure one's economic foundations are, the more one can afford to take risk. In other words, more risk-taking is to be expected in fairly rich communities than in communities with modest competence. Difference in traditions is also of no less significance. Traditions feed on themselves. Communities or families having a career of successful risk-taking behind them develop a degree of confidence in the chances of success. Often other communities or families lack this confidence. So traditions do help a community in cultivating the spirit of adventure. In the context of developing economies even a fourth factor comes into the picture. It is an individual's willingness to change his occupation. Conventions, traditions and taboos of the caste system often seek to compel a man to pursue only in the trade into which he and his father were born. It is often found in the extreme status-type economies. This change of occupation becomes particularly hard if it necessitates leaving one's sweet home. Willingness to leave one's home and take up another occupation is partly a function of sentiment, partly a function of pressures, and partly a function of the attractions and charms of the place to which one is required to move. Before closing the discussion of the spirit of adventure it is necessary to remark that what industrial growth requires is an adequate supply of innovators, not that all should be adventurous.

It has been remarked that economic or industrial activity, increasing knowledge and increasing capital are the three proximate causes of industrial growth. Uptil now we have kept ourselves engaged in the threadbare discussion of economic activity. But before closing it a few words may be said

about the natural resources and human response to them. Growth is mainly the result of human effort. Nature is particularly unkind to man. By the help of his thought and action man wrests from nature more product for less effort. The usefulness of a resource changes from time to time according to the changes in human tastes, changes in techniques, and new discoveries. Left to themselves resources would have been of very little use for the industrial growth of a community. For instance, mica, which is of enormous importance to many industries, was not a valued resource until people learnt its economic or industrial use. And nobody can say with confidence as to what will be its value in nearly three hundred years time.

Uptil now we have been considering people's willingness to the effort required for industrial growth. We shall next come to the scope which community's economic institutions offer to such effort. Institutions may be responsible both for promotion and restriction of industrial growth. They help it according to the protection they accord to effort, according to the facilities they afford for specialisation, and according to the freedom and opportunities they provide for economic and industrial manoeuvres. Institutional barriers hinder industrial growth too. What follows hereafter will shade some light on it.

Men will not make much effort for industrial progress if community's institutions fail to assure the fruits of their effort to themselves or to those whose claims they recognise. If institutions make it necessary to distribute the fruits of one's effort among a wider net of social relations, growth will be hindered. As against it some people argue that men work for pleasure of creative effort alone. They work for the pleasure of serving their fellowmen. They can be content without material reward if there are social recognitions. No doubt there are some works from which men derive pleasure and would be ready to do those works with little or no material reward. But most work is not of this type. A university teacher is sick and tired of repeating himself year after year. An office clerk tires himself of going the beaten track daily.

A typist becomes bore after having worked on the typing machines continuously for the whole day. If institutions do not provide adequate material reward to them they will hardly work. An industrial labour, whom specialisation has reduced to be just a cog in the wheel, will hardly come to factory if he is offered only a non-material reward. Even Soviet rulers had to return to reliance upon wide differences in earnings.

Industrial growth requires capital formation. But capital formation is not possible if there are institutional barriers to the growth of wealth and property. Hence the existence of a law of property is one of the essential conditions for capital formation. If institutional barriers stand in the way of protecting private property from public abuse or public property from private abuse, there will hardly be any capital formation or industrial growth. Institutions must help an individual or an institution (as the case may be) in legally excluding others from using a particular resource which belongs to him or it. Similarly industrial growth requires that law and order should be maintained properly. If the State is unwilling or weak or inefficient and fails to maintain law and order, owners of property will feel insecure and this may weaken their instinct to invest. If the period of disorder is long drawn out, dissaving takes the place of capital formation. Governments also can be as damaging to capital formation as bandits. For instance, if the nature and incidence of taxation is foreknown, investors are likely to put up even with a high level of taxation. But arbitrary taxation and forced payment discourage investment and encourage instead unproductive use of wealth. People may conceal their wealth. They even try to export it or consume it.

Another fundamental requirement of industrial growth is that private or public authority which invests in industries must believe that it will get its money back, plus some compensation for the act of investment. Then only it will feel inclined to invest rather than to consume. It is an altogether different matter that its beliefs will be falsified by wrong estimates of market forces. That it must believe in its prospects at the

time of making investment is all that is required for making it invest. The problem assumes special significance when the investor is a foreigner. Foreign investors can not be tempted to invest unless they believe that they will get their money back. They should be made to feel that they would get the facilities of repatriation of their capital and profits. They should be also sure of due compensation in case of nationalisation of their industries. A constitutional guarantee is most assuring.

✓ The institution of family often works as a barrier against industrial growth. A strong sense of family obligation may often cause a man to appoint relatives to jobs (in industries) for which they are not suited. Others may even refrain from appointing such a person (howsoever competent he may be for an industrial job) because of the apprehension that he will thereupon appoint unsuitable relatives to the jobs at his command. Hence the institution of extended family system may hinder the industrial growth in a community. } But at times this family sentiment is helpful to growth. There may be societies where strangers can not be relied for faithful service. In such societies family may serve as the most appropriate unit for large scale enterprise. Brothers and closely related cousins may prove to be of considerable use.

✓ The institution of 'Parda' is also a barrier to industrial growth. In some communities, just to assure recognition of their social status some people deliberately keep their wives and daughters idle and inside 'Parda' and keep them surrounded by servants. Others, even if they allow their wives and daughters to work, allow them within the household. All this reduces the scope of trade and specialisation which are extremely essential for industrial growth. So industrial growth is not promoted if the custom of 'Parda' requires that women should not work and even if they work they should work inside the houses.

✓ The law of inheritance may also present an institutional barrier to industrial growth. The son of a big industrial magnate is not necessarily the best man to look after his industries after his death. His son may be an unworthy son

of a worthy father. So industries or institutions founded on inheritance do not often show as much vitality as those which recruit their leaders afresh in each generation. It is often remarked that the Roman Catholic Church has been able to maintain some of its vitalities because its bishops are made, not born. But the system by which property passes automatically to the next generation has its merits as well. It permits the successor to be trained in anticipation. Besides, the love of one's direct descendants works as a great incentive for capital formation. So our conclusion of this line of discussion is that though the inheritance of property diminishes vertical mobility and enterprise and thereby works against industrial growth it is not an altogether useless institution for industrial growth. Its effects on industrialisation are both good and bad.

The effort or will to economise (i.e. increasing economic activity), the accumulation of knowledge, and the accumulation of capital are the three proximate causes of economic growth. In the preceding paragraphs of this section the will to economise was examined in terms of the values which make increasing economic activity seem worth while, and also in terms of the institutions which frustrate or foster economising effort or increasing economic activity. Next, it has to be considered how dearth of technical know-how is an obstacle to industrial growth, and its accumulation and application a help to the same. As consideration of hindrances to industrial growth is the main interest of this section, the discussion of accumulation and application of knowledge will be only casual.

Knowledge is a very comprehensive term. It includes knowledge of art, science, commerce, engineering, medicine, surgery, and of what not under the sun. Knowledge is to growth what food is to a baby. As a baby cannot grow without food and water, growth cannot occur without accumulation and application of knowledge. It is required not only in manning the atomic reactors but also in making receipts and despatch entries in a register. It is essential for a primary school teacher who helps the growth of literacy. Not even a sweeper can perform

his duties properly without the knowledge of sweeping. The factory worker and the technician are also required to acquire knowledge of their profession. The big as well as small managers are also not able to discharge their duties without a proper background of business administration and personnel management. The teacher who is engaged in teaching must possess a sound knowledge of the methodology of teaching. So knowledge is essential in every walk of life. In the sphere of industry it has still greater significance. These days industrialisation is generally associated with large-scale industries. And large-scale industries are run with the help of complicated machines. Knowledge is required both for manufacturing these machines and for handling them. In a way knowledge is vital to capital formation. Besides, all accumulated capital is useless without adequate knowledge of how to make use of it. It is knowledge to use them which makes all the difference between a trash and these valuable machines.

So dearth of knowledge hinders the growth of industrialisation in a thousand and one way. In spite of everything inadequate supply of knowledgeable persons will road-block the path of industrial progress. Inadequate supply of knowledgeable persons will manifest itself into the disequilibria of supply and demand of trainable and trained industrial labourers, of technicians, of foremen, of managers, of managing directors and so on. These disequilibria will make it impossible for industrialisation to grow. All capital formation will remain as useless as trash and all savings will remain idle in absence of knowledgeable persons. What soul is to body, knowledge is to machine.

Industrial growth depends both upon technological knowledge about things and living creatures, and also upon social knowledge about man and his relations with his fellowmen. Both are almost equally important because the course of industrialisation is influenced as much by such matters as learning how to administer large-scale organisations, or creating institutions which favour and foster economising spirit, as by learning how to build bigger dams, or breeding new seeds. Any way, investment in human beings is as necessary as

investment in machines and dams.

Now let us come to the growth of knowledge. It grows because we are curious and experimental by nature. Our curiosity causes us to enquire into things because they attract our attention even if they are not relevant to our practical problems. Practical tasks in our hand stimulate our desire to experiment. The invention of writing has considerably contributed to the advancement of knowledge. It helps each generation in building upon the knowledge of its forefathers. Prior to the invention of writing we used to pass on to the next generation only what we could remember in head. But memory was no substitute for writing. The significance of the art of writing is still greater in handling of abstract ideas. Besides the invention of writing, the invention of scientific method has also accelerated the rate of growth of knowledge. For it credit goes to the philosophers, particularly to the philosophers of ancient Greece who are responsible for the invention of logic and metaphysics. But the scientific method was left to bloom when after nearly two thousand years Renaissance reopened these fields of enquiry once more.

A reasoning, questioning and experimental mind is helpful to the growth of knowledge. The questioning mind flourishes comparatively well where men are free to choose between different competitive religious cults. It has very little scope to flourish where religion is authoritarian and monopolised. Likewise, if the political and economic power is widely diffused and liberally exercised, the enquiring mind will have a fairly good scope to flourish. Geographical situation also plays an important role. Cross-fertilisation of cultures also helps the growth of knowledge. Given the aptitude to think abstractly and to experiment, the existence of a leisure class is also helpful to the growth of knowledge. Accumulation of knowledge owes even to the workers at the job and to the professional inventors. Truth to tell, growth of technology has owed very little to science as we understand this term these days (Science generally refers to an existing body of abstract principles). The steam engines, the inventions in

weaving and spinning, the system of rotation of crops, the machine tools, the new ways of smelting ores were all invented by practical or professional people who knew very little or nothing of science as such. It were these practical people, and not the scientists who were responsible for the well-known inventions of the eighteenth and the nineteenth centuries. Only in the twentieth century the study of science has become essential for the would-be inventors.

Knowledge grows very slowly if it is kept secret for the few. In many societies the literate jealously guarded their secrets and the illiterates made a mystery of their crafts by formation of guilds. Some big industrial concerns often organise industrial researches which give them great competitive advantage over their small and medium sized competitors. But they hardly share the secrets of their new industrial inventions. This tells upon the progress of industrialisation. On the other hand there are a number of government research institutions which are wholly financed and controlled by the State. The fruits or discoveries and inventions of these public institutions are shared by all because they are open to all.

Industrial development generates a great demand for persons of sound knowledge of administration, whether in business or in public service. The under-developed countries frequently have a multitude of enterprising men and women. What is deficient is the knowledge and experience of administration, and not the spirit of enterprise or adventure. Of course, great entrepreneurs are not abundant in supply. They are born, not made. The Fords, the Woolworths are scarce in supply, and cannot be made to order. Business schools can impart some of the knowledge of business, but an important part of it can be learnt only by experience of the job. Personal qualities of temperament and character also matter much. The tricks in the management of men (selection of staff, methods of training, the delegation of duties, etc.), the tricks of handling physical resources (the factory layout, the care of machinery, and so on), and the tricks of record-keeping (of stocks, orders, credits, debits, etc.) can very well be taught by business schools. But how to get on with one's staff is a

question of temperament and also a question of learning in practice. No body can be taught the art or the skill of combining the loyalty and the efficiency of his staff. Neither can the commercial sense be imparted. Similarly no business school can instil the sense of integrity in a person. Even then there is as much scope for a commercial and industrial advisory service as there is for the parallel service in agriculture.

This much about how dearth of knowledge hinders and how the accumulation and application of knowledge help the growth of industrialisation. Now we shall next come to capital and shall examine how low level of capital formation is one of the important obstacles in the path of rapid industrialisation.

✓ The chief forms of capital formation are investment in fields and factories, power plants and projects, irrigation and fertilizer projects, arms and ammunitions factories, aeroplanes, railways, locomotives, ship-building factories, basic goods like steel, cement, bricks etc., road-building, school building, hospital-building, and so forth. No under-developed country can reach the well-known 'take-off' stage unless it has made sufficient investments in basic and key industries. In other words industrial or economic growth is associated with an increase in capital per head. Much spade-work has been done by Professor Simon Kuznets and Dr. Colin Clark in regard to the establishment of quantitative relationship between income and capital. Invariably writers on economic growth draw heavily on their (Professor Simon Kuznet's and Dr. Colin Clark's) pioneering work and maintain that raising national income by 3 per cent per annum cumulatively is associated with an annual net investment of between 9 per cent and 12 per cent of national income. To put it in a different way, they say that on the average an investment of £ 100 is followed by an increase of national income by between £ 25 and £ 33 per year. So they advise that under-developed economies should also follow suit and like industrial countries they too should invest between 10 per cent to 15 per cent of their national income so that their incomes also

tend to grow by between 3 per cent and 4 per cent. Any way, what is essential for industrial or economic growth is a sufficient level of capital formation. But a newly industrialising country should at the same time see that investments are made in a balanced way. Investment in factories is as useful and essential as investment in the fields of transport power, education, health, etc. As a matter of fact capital tends to stick to the beaten track, resulting into over-investment in some activities and under-investment in others. A balanced or planned investment prevents the emergence of bottlenecks. On the other hand if there is a planless investment several bottlenecks will come up and obstruct the pace of industrialisation. For instance, the growth of industrialisation will be held up for want of adequate power and transport facilities. Greater investment in industries will require more power to run them. Similarly, growing industrial production will require more transport facilities both for bringing raw materials to the factory site and for reaching the finished goods from the factory site to the distant markets. Likewise increasing industrial activities increase the demand for knowledgeable persons. Therefore, shortage of power and transport facilities and technical know-how and other knowledgeable persons will not allow industrialisation to grow. Hence, significance should be attached not only to the level of capital formation but also to the maintenance of proper balance in it. In other words, attempts should be made to avoid the emergence of bottlenecks.

✓ Capital formation which is so essential for rapid industrialisation can not be easily stepped up in an under-developed economy due to shortage of skill, inadequacy of public utilities, institutional and attitudinal barriers, lack of suitable natural resources and finance. Shortage of skill is the most important bottleneck which restricts the rate at which capital can be absorbed. It prevents people not only from using capital fruitfully, but also from using it at all. More than half of capital formation usually consists of work in building and construction. Hence capital formation is largely a function of the rate at which the building and construction industry

can be expanded. But the expansion of these two industries is by and large dependent on the supply position of skilled persons like carpenters, masons, electricians, engineers. They are needed in the construction work, whether it be with regard to roads, bridges, dams, factories, power plants, houses or the rest. Another important bottleneck which restricts the rate at which capital can be absorbed is the inadequacy of public utilities. New industrial enterprises need communications, dock facilities, water supplies, electric power and such other services. Given finance, the question of expansion of public utilities resolves itself into the question of the rate at which these things can be constructed. But this again resolves itself into the question of the rate at which the building industry can be expanded. So once again one comes to the point that shortage of skill is the most important obstacle which restricts the rate at which capital formation can take place.

Given skill, public utilities, and natural resources, institutional and attitudinal barriers are the real bottlenecks which hold up a rapid acceleration of capital formation. The question of the rate of acceleration of capital formation resolves itself into the question of the rate at which investment takes place. Investment again depends upon savings because investment has to be matched by savings. In an under-developed economy, *inter alia*, institutional and attitudinal barriers result into people's low propensity to save. Unless these barriers are removed a community can not be converted from being a 5 per cent to a 12 per cent saver. Unless this conversion takes place an under-developed economy can not reach the 'take-off' stage. But this conversion is largely a function of thrifty habits. It is true that thrift increases savings but it is misleading to suggest that all classes of the community should become thrifty or less wasteful. What is necessary is that institutional and attitudinal barriers should not stand in the way of emergence of a new class in the community—the profit making entrepreneurs—which is more thrifty than other sections of the community (the landlords, the wage-earners, the peasants, the civil servants and the other salaried people). Besides, if

private sector falls short of the task institutional and attitudinal barriers should not prevent the State from having proper drive and initiative to cause adequate public savings, either through taxation or through inflation. We may have some suitable examples of how institutional and attitudinal barriers stand in the way of private and public savings.

Due to peculiar religious, social and cultural outlook and faith poor people in some under-developed countries (as in India) have a very high propensity to incur debt which in the long run feeds on itself and becomes cumulative. So their propensity to save goes down. Similarly the peculiar attitude towards life makes people in under-developed economies (as is still found in India) despise the ways of the life of entrepreneurial classes. Some are labelled as 'Banias' (a term used for hooting the trading people for their thrifty habits), others as upstarts, and still others as selfish and self-seekers. If the society puts a very low premium on entrepreneurship people will think thrice before taking up an enterprise. Similarly, if political and social institutions do not guarantee an adequate safeguard to the private property, people will hardly have any great desire to augment their capital resources. Likewise, lack of institutional guarantee of the right to bequeath may mar the propensity to save and invest in capital assets. In addition, dearth of suitable facilities for preserving one's savings (till they are converted into investments) may also work against the propensity to save. Coming to institutional and attitudinal barriers to public saving and investment one feels tempted to point out that the institution of democracy often hinders State's propensity to save. Heavy taxation as well as inflation are opposed tooth and nail. People's representatives often fail to realise the usefulness of forced savings. The bogy of election often prevents a democratic government from resorting to heavy taxation and inflation. An unhealthy and destructive opposition may also reduce a government's propensity to make large savings. If political, social and cultural institutions of a developing community are opposed to State capitalism public savings will be largely discouraged and obstructed. On the other hand the government itself may

consist of persons who lack the proper drive and initiative to encourage public and private savings. In this case also the public and private propensity to save will remain at a very low level.

3

ROLE OF STATE IN CREATION OF PROPER ATMOSPHERE FOR RAPID INDUSTRIALISATION OF UNDER- DEVELOPED COUNTRIES

IN A NEWLY industrialising or developing economy the State can help the removal of hindrance to rapid industrialisation in many ways. In this direction it can do a lot by effecting behavioural, attitudinal and institutional changes, by promoting skill formation, by promoting capital formation, by making people aware of developmental potentialities and advantages, by creating general conditions for development, by resorting to methods which explore, appraise and stimulate private investment, and finally by making basic public investments. Now each of these measures has to be discussed at length.

In the preceding pages something has been said about how behavioural, attitudinal and institutional barriers prohibit the growth of industrialisation in a newly developing society. So it is in the interest of rapid industrialisation that such behavioural, attitudinal and institutional barriers are pulled down. Therefore, by the help of publicity, moral

persuasion, legislation, force, etc. the state should see that such traditional beliefs, behaviours, habits, attitudes and institutions give way to the new. It should see that the new order, that is, new beliefs, habits, behaviours, attitudes, and institutions become firmly rooted and a new equilibrium is reached which is superior to the old static social equilibrium. People should be persuaded rather made to bear the brunts of temporary but painful transitional phase. While the world lasts, there should always be statesmen and politicians who should not hesitate to coerce their subjects for the ultimate good of the coerced. For instance, the abolition of the 'Zamindari' system in Bihar is a bold institutional change (of course for a democratic government) which is persuading an ex-rentier class to take to industry and trade. Fixation of a ceiling on land is another fine example of institutional change in the direction of economic growth. In some parts of Africa people were rather forced to work on plantations or in mines either because they were driven off their lands, or because their chiefs ordered them to do so, or because this was the way of earning money to pay taxes levied on them. Similarly, the State may have to effect attitudinal change to make village agricultural labourer to prefer jobs in factories situated in big cities. In many ways it can help the creation of such circumstances and environments which will facilitate the desired attitudinal and behavioural changes in the village agricultural labourers.

With regard to the promotion of skill formation the State can adopt more ways than one. First, it can see that both in public as well as private sector investment in human beings is not sacrificed at the altar of investment in fields and factories. The state can promote the growth of knowledge by encouraging the growth of educational institutions. By helping the promotion of such institutions the State can greatly influence the supply of knowledgeable persons like clerks, technicians, mechanics, engineers, electricians, chemists managers, administrators, and so forth. The State can even go to the length of helping industrialisation by setting up the Department of Scientific and Industrial Research, by

establishing science and engineering colleges and schools. Not only that, it can force foreign industrial concerns to employ indigenous persons to responsible managerial and administrative posts. Besides, the state can make arrangement with foreign governments and capitalists to train its people in foreign countries even. Technical cooperation arrangements can very well be made with foreign governments. Like private sector public sector can also adopt suitable wage differentials for encouraging private persons to accumulate skill even at the cost of their private expenses.

Now a word about the role of State in capital formation. Capital formation is dependent upon the level of investment. And this in its turn has to be matched by savings. But in newly developing communities the obstacle to greater investment is that the current propensity to save is very low. In this context State can play very useful role. It can increase public saving and encourage private savings. Public savings can be well augmented by resorting to high taxation, turnover taxes (of the U.S.S.R. type), and even inflation. But institutional barriers (already referred to in the preceding pages) stand in the way of high taxation and inflation. For obvious reasons governments often prefer large scale inflation to high taxation. But at times the creation of new money (which contributes towards capital formation) provokes runaway inflations and seriously affects people's confidence in money and government bonds. So the moral is that if inflation is to be used for capital formation the State should use it only intermittently and in small doses. Besides, it should be used only for investments which can be completed quickly and which are then very productive. Inflations used for creating useful capital are self-destructive. In due course the new capital puts forth a new stream of consumer goods and services which either bring down the prices or at least check the rise of prices. Besides, an increase in savings takes place due to the rise in real output. This increase in savings provides the savings which maintain investment at its higher level. In addition, inflation proves beneficial to entrepreneurs, to peasants,

and in some cases to governments. The prices of what entrepreneurs sell have a tendency to rise faster than salaries, wages, interests, rents etc. As the demand for food is almost inelastic, food prices rise more sharply than other prices. And so peasants too benefit much from inflation. As compared to the other classes of the society peasants and entrepreneurs are very thrifty, and therefore inflation almost certainly leads to increases in savings. Often the fall in the savings of the middle classes as their real income falls) is more than compensated by the rise in the savings of the peasants and entrepreneurs. Both of these classes have a higher propensity to save than the middle classes have. The effect of inflation on government revenue will depend upon whether the proportion of income taken in taxes is larger or smaller at the margin than it is on the average. If marginal taxation exceeds average taxation, the share of the national income taken in taxes will rise with every increase in money incomes, with the ultimate result that the government will reach a point where (due to great rise in its revenue) new expenditures can easily be met without any further creation of money. The governments of the U. K., the U.S.A. and the U.S.S.R. are some of the suitable examples of it.

To conclude the discussion about inflation a few more words may be added. If State wants to bring inflation to an end it should see that savings (generated by inflation) are either hoarded or used in place of more new money to finance the investment which has been causing the inflation. The question of whether savings will be hoarded or invested in government bonds or not resolves into the question as to what is the rate of inflation and how long inflation lasts. A rapid rise in prices or continued price rises make people lose confidence in money and government bonds. In that case they will hold neither money nor government bonds. Real assets will be held instead of money and government bonds. Then prices may rise even faster. In this case much will depend upon the integrity and efficiency of the administrative machinery of the government. The State can prevent inflation from

getting out of hand if it succeeds in fixing maximum prices, in rationing essential consumer goods, in licensing new investment, and in persuading people to hold the priceline. Whether there will be a runaway inflation or not will largely depend on the success or otherwise of these policies. If they succeed, they will almost certainly strike inflation at the root. Rationing will compel them to save what they cannot spend (on rationed goods), and therefore savings will be brought into equilibrium with investment. The governments of the U.K. and the U.S.A. have already proved it during the last world war. In spite of the great magnitude of the war expenditure, prices rose only by 50 p.c. In addition they resorted to very high marginal rate of taxation which sucked up round about 50 p.c. of the expenditure as fast as it generated incomes.

The State can do a lot by way of encouraging private savings. Wage earners', salaried persons' and peasants' propensity to save is usually very low. Their savings are hardly one per cent of the national income in under-developed countries. Even in developed communities they seldom exceed four per cent. Japan is a notable exception where such small savings have varied from eight to ten per cent of the national income. In under-developed countries small savings can be very well pushed up to about three per cent by means of propaganda, by financial incentives and by setting up savings institutions. Saving habits can be created by propaganda. What is necessary is that development programmes should be made to catch people's imagination. People are prone to save more if they are given sufficient acceptable reasons for saving. Much depends also on the range of savings facilities and institutions provided by the State and the society. Financial incentives also play very useful role. Low rates of interest are customary in case of small savings, partly because of the high cost of collecting and using them. But here is fine case of subsidising the rate of interest (offered on small savings) in order to make financial incentives adequate, and small savings attractive. Besides, if inflation is being used as a tool for capital formation, resulting into falling value of money, a case is made out for guaranteeing the real value of small savings.

Otherwise small savers are discriminated against, with the result that such savings will be discouraged.

As regards large private savings it may be said that profits distributed or undistributed are the most significant. It may be explained as follows. The agricultural classes fulfil their ambition by buying land or by holding offices, the salaried middle classes by conspicuous consumption and display, the aristocracy by increasing the size of their estates, but the capitalists are possibly the only class whose ambitions are fulfilled by such use of their incomes which creates an empire of bricks and steel. Though in the later stages of capitalism these distinctions are blurred and thrift and productive investment spread to almost all classes of the society, in the early stages of industrialisation productive investment is essentially the mark of the capitalist class of the society. So capitalists' profits, distributed or undistributed are the major source of large private savings. Joint stock companies' profits are also worth mentioning here. So companies' as well as capitalists' profits are immensely responsible for the conversion of an economy from a 5 to a 12 per cent saver. In other words this conversion has much to do with the increase in the share of (their) profits in the national income. Therefore, all that is required is that State should see that an ever increasing proportion of such profits are reinvested. A steeply graduated rebate on undistributed and reinvested profits will serve the purpose of industrialisation to a considerable extent. Besides, there should be political security of capital investments. Capitalists should not be left at the mercy of the political aristocracy. Given political security of capital investments, industrialisation in private sector will rapidly grow if the opportunities for industrial investments are very profitable. So different kinds of fiscal, financial, economic, political and social incentives can be given to the capitalist class.

The State can offer attractive terms even to the foreign capitalists. They also can be made to make significant contribution to capital formation. The foreign capitalist requires not only the facilities granted to the indigenous ones, but also a guarantee (preferably a constitutional guarantee) of their

right to repatriate their profits and capital to their homeland. In case of nationalisation they want constitutional guarantee of fair and adequate compensation. Besides, they are allergic to political arbitrariness and discrimination between them and indigenous capitalists. In all these respects State has a significant part to play. Last but not the least, stable governments are also an incentive to foreign investors.

But what has been said in the preceding paragraphs does not preclude the State from imposing reasonable taxes on private capitalists and their profits, in so far as these tax-proceeds can help the State capitalists (as it is happening in the U.S.S.R., India, and similar other countries) in capital formation on public account. In modern world the importance of this new class of State capitalists can hardly be exaggerated. We have already examined how determined they are to make large public investments. They are no less relevant than the private capitalists. Both hold similar views on the importance of savings and of productive investment. State capitalists' determination to make huge productive investments on public account is considerably strengthened by their all-out attack on poverty and disease, by their strong desire for military strength, and by their beggar-the-neighbour policy. Besides, there is growing realisation on the part of these State capitalists that the construction of social and economic overheads (public utilities being main part of these overheads) is their cup of tea.

These State capitalists attach considerable importance to turnover taxes which have proved their great worth in the U.S.S.R. The institution of democracy and public opinion pose less serious problems in case of turnover taxes than in cases of other taxes.

This much is about capital formation by private and State capitalists. Next we come to other functions (of the State) which have much relevance to the economic and industrial growth. Though in recent times State is doing immense service to the cause of industrialisation by maintaining law and order, by maintaining and running several public utility services, by influencing and shaping attitudes and institutions, by

influencing the allocation of resources, by influencing the distribution of income, by controlling the supply of money, by controlling the trade cycles, by ensuring full employment, and by influencing the level of public and private investments, we shall confine ourselves (in what follows) only to the discussion of how State can help the growth of industry by making people aware of developmental potentialities and advantages, by creating general conditions for development, and by resorting to methods which explore, appraise and stimulate private investments.

In newly developing countries, due to lack of information, finance and other resources, potential industrialists are usually ignorant of industrial prospects. They badly require a thorough information about technically feasible and economically sound potential industrial projects. Awareness of the industrial possibilities and prospects can be accomplished by the State largely through statistics, research and information. Surveys should be made and statistics collected by State institutes or departments or by State-aided institutions or university departments. Reliable statistics on such matters as production, trade, prices, government finance, income and income distribution should be collected. Besides, attempts should be made to prepare a summary of the basic structure of the economy. On the basis of all these collected statistics researches should be made on all industries and contemplated projects involved for the next decade. The programmes prepared on the basis of these researches should necessarily be periodically revised and made up-to-date because in their very nature programmes are only guesses. As a matter of fact their most significant contribution is that they bring to light the magnitude of the interdependence of the relevant economic phenomena. These programmes serve as the basis for market research. State should timely communicate to all concerned adequate information regarding the results of statistical investigation and programming, and also regarding government policies. It can help industrialists in taking up only technically feasible and economically sound projects.

Then State is required to create general conditions for

development. For it governments should make some basic investments in the public sector. These public investments are indispensable because of many reasons. Private individuals may not possess adequate financial and other facilities for such investments. They may not also like to make such investments either because they do not expect to get benefit out of them or because they are less profitable than other investment potentialities. There may be even many other reasons for poor response from the private sector. So State must come to fill the gap. Social and economic overheads like transport, communication, power, public health, education, some complementary services, etc. are the most suitable examples in sight. Even in countries which are strongholds of capitalism, State is slowly and gradually entering into these fields. Transport and power are needed in almost all modern industries. History of industrial development of many countries bear witness to the fact that these essential services have been rendered by the public sector, whatever may be the degree of these services. State have also to make some complementary investments just because they are auxiliary to some more primary objectives. For example, the construction of a number of dwellings is necessitated by the construction of an industrial plant in a remote village. This industrial plant will require some communications facilities as well. Therefore, if it is decided to carry out the main industrial projects, the State has to accept the execution of even the auxiliary activities. But while making these basic public investments care should be taken that they fit into the general programme of the public and private sectors and make the maximum contribution to the national welfare. No such investment should be made by a government just because it involves its prestige or satisfies its vanity. The national welfare test is probably the best test.

Then the State has to resort to methods which explore, appraise and stimulate private investment. It should search for technically feasible and economically sound industrial projects. While exploring the possibility of sound industrial projects, a thorough survey of the national resources—land, minerals, knowledge (the skill of the population) etc.—should

be made. In other words country's possibilities should be studied in a more thorough and systematic way. This study should form the basis of rough estimates of the different costs of production for most promising and useful industrial goods. These surveys and rough estimates of costs of production can very appropriately be prepared by the government agencies and university institutes. Of course, these provisional estimates can form the basis for more accurate computations by the private industrial concerns. The question of which industries should be chosen for a country's development boils down to the question of which industries are both technically feasible and economically sound, and are favoured by the existing transport facilities in the country, and are likely to develop home demand as a consequence of rising incomes. While making the choice of technology an eye should be kept on the existing physical conditions in the broadest sense. The choice of technology should be largely determined by the character of soil and raw materials, by the nature of transport and power facilities, by the availability of capital and knowledgeable persons, and also by the amount of expected foreign cooperation in respect of foreign exchange, technical know-how, capital etc. And above all it should be determined and influenced by the maximum national welfare test. For example, the cost of capital should be compared with the cost of labour, cost to be interpreted as cost to the nation.

All search for and exploration of sound industrial projects will be useless if their results are not communicated to all concerned. Authentically correct information on market, on official measures, on techniques, on knowledge (supply of knowledgeable persons), on financial facilities, and so on, are of prime importance to investments in the private sector of a country. Such information is of two types—the sophisticated information mixed with scientific research, and the simpler, information. The first category of information is rather costly and all industrial concerns can not afford to have them at their own cost. Even if they could, it would mean a tremendous national waste of energy, time and money. The arguments in favour of some amount of international coordination in this

type of research are even more strongly applicable to co-ordination on a national scale. Commercial facts and all sorts of administrative regulations comprise the second category of information. This includes information regarding organisation, co-operation and marketing also. Information of both types is a great encouragement to industrial investments in the private sector. Information can well be supplemented by demonstration. In the field of industry erection of demonstration plants, combined show at industrial fairs, and similar other exhibitions are as useful as the demonstration of new seeds, new fertilisers, new tools, new methods to the agriculturists. So the idea should be applied by the State in the field of manufacturing industry as well.

Next we come to some other methods of stimulating private investment, namely, protection, subventions, tax provisions, etc. That a country's development policy should include an elaborate system of stimuli and deterrents intended to guide the private activity has ceased to be a subject of debate today. Since long governments have been adopting different methods of helping industries. Protection against foreign competitors is possibly the oldest device. Protection, in past, has suited the interests of most nations of the world. There has been a lot of discussion on protection versus free trade and much has been argued from both sides. But protection has lost much of its glamour in recent times. In some countries it has been substituted by other measures, while in others it is only a temporary phase.

Subsidies are possibly the better course to follow. Their suitability is still greater if the number of plants involved is small. Subsidies excel protection in as much as they are a more open technique (every body can observe them), they are annually discussed (and so cannot be unnecessarily continued), and they do not distort the price-structure (especially when they are granted in lump sum). Subsidy of a certain percentage of the building cost or the labour cost (wages), or the land cost or the plant cost may be a suitable type of it. This form of subsidy can be favoured on the ground of the divergence between the market prices and the accounting prices of

certain factors of production, say labour, land, capital, etc. But it may not necessarily be equal to the difference between the two rates or prices. It may even equal the market prices themselves. But this device (subsidy) may be despised because of budgetary considerations because any large scale application of this measure will entail enormous burden on government's exchequer. The result may be heavy taxation or even dropping of some very useful public investments. It may ultimately lead to increase in the tendency to evade taxes. But budgetary consequences might be lessened if unemployment doles exist and are paid out of public funds. If the amount of subsidy equals the amount of doles, there will be no budgetary difficulty. The budgetary difficulty can still be reduced by putting an extra charge on the supply of capital by the government to the lower authorities or public and private enterprises. It means that on the supply of capital government should charge a higher rate of interest than the rate at which it itself borrows, on the plea that the accounting price of capital justifies this differential.

Tax provisions are the third financial device to stimulate investment activity. It has already been remarked (in this very section) that reduction in company taxes, particularly steeply graduated rebates on undistributed and reinvested profits will stimulate investment activity. Exemption of taxes on certain additional depreciation allowances on new investments may also stimulate investment activity. In the immediate post war-period (after World War II) this device was very popular in the world. But care should be taken that tax remissions do not stimulate consumption instead of investment. The safety valve is that tax remissions should be made only after positive proof of reinvestment of profits. Besides, while making tax remissions no discrimination should be made between one industry and another. Even if exceptions or discriminations become inevitable, they should be made on one general principle and not on any other ground such as personal likes and dislikes.

Last but not the least financial measures are the provision of credit facilities by government sponsored institutions (like

Industrial Credit and Investment Corporation etc.) and government participation in industrial endeavours. Credit facilities have always been an important factor because entrepreneur's own resources are seldom enough to wholly finance the industrial investments. Credit needs of especially small entrepreneurs are a great problem indeed. While in some countries special investment banks have long existed, in others they are a quite new phenomenon. But in almost all newly industrialising countries governments are setting up public corporations entrusted with the task of providing industrial credits of various types and various terms.

Government participation in investment is also becoming day by day popular in mixed economic systems (India, Netherlands etc.) The magnitude of government participation ordinarily varies according to the nature and importance of the industry and according to the financial response of the private sector.

Before rounding up this section it may be remarked that if on the one hand State can produce a notable effect on industrial growth, on the other hand if it does too much or too little or the wrong things it may even retard the same. There are many ways in which industrial growth can be retarded by the State. For example, a State may bring about industrial decline or stagnation if it fails to maintain law and order or plunders citizens or facilitate or ignore the exploitation of one section of the society by another, or prohibits or obstructs foreign intercourse or neglects essential public services, or indulges in excessive *laissez faire* or excessive regimentation and control, or spends lavishly or embarks upon unnecessary costly wars.

Governments' failure to maintain law and order within its borders can let loose a reign of terror, bandits, footpads and highway robbers preying upon travellers and traders. Industrialists' capital too will not remain safe. This sense of insecurity can almost certainly prohibit the free growth of industry and trade. On the other hand an efficient police, effective courts and dependable administrators can create confidence amidst all and thus industrialists and traders

can safely augment their capital.

For a businessman corruption is just a form of payment for service, provided bribes required by government servants are reasonably small and expected or foreseen. They (bribes) are unpalatable to the businessmen only when corrupt officials unexpectedly pounce upon them (businessmen) and require bribes which they could not foresee at the time of entering into the contracts. In pre-capitalist societies businessmen usually remained at the mercy of lords, princes and their officers who used to take loans (from them) which they had no intention to repay. This was one of the reasons which caused industrial and capitalist sector to grow very slowly in the pre-capitalist society.

If government connives at the exploitation of one section of the society by another, it will prove detrimental to industrial growth. The relevant point is that slavery, serfdom and concentration of economic power in the hands of a particular class of the society will reduce the social mobility and adversely affect incentives. They deprive society of the use of superior talents of other sections of the society and instead compel it to depend upon some inferior talents of the privileged section of the society. So the cause of growth considerably suffers. The question of how much society's growth will suffer on this account resolves into the question of much intolerant and unaccommodative the privileged section of the society is. The privileged section will make exceptions for the superior talents of the excluded sections only to the extent the former are tolerant and accommodative. Besides, the lack of incentives among serfs and slaves is a well known fact of history. So exploitation of one class by another proves inimical to all sorts of growth of the society, particularly to the economic and industrial growth.

History of colonisation and exploitation of one country of the world by another has bred distrust and hatred for foreigners, especially for prosperous and powerful ones. At times baiting the foreigner is considered by some governments as the surest way to popularity. Nineteenth century

imperialism is largely responsible for the current reaction against foreigners. But it is often forgotten that foreigners bring with them new capital, new skill, new tastes and new markets. If they are altogether kept out, the society is deprived of their stimulus. Cause of industrial or economic growth will be served if in their zeal to protect their countries from exploitation the governments do not forget to take advantage of industrial opportunities offered by the foreigners.

Investment in social and economic overheads must precede investment in installation of machines and plants. Roads, power supply, water supply, public health, education, etc. are essential pre-requisites of growth. Inadequacy of the supply of these services generates many bottlenecks which roadblock the path of industrialisation. Therefore, they must go ahead of installation of plants. But the problem is that for various reasons (already mentioned in the preceding pages) the private sector is not much interested in the development of these services. Hence, the alternative is to develop them in the public sector. Naturally therefore, the government which fails to spend adequately on these public services retards the growth of industrialisation.

Too much reliance on *laissez faire* prevents governments from fostering new manufacturers and seeing them through their growing pains. But governments do have some pioneering functions to discharge. Infant industries must get their protection, research must be supported by them, immigrants must be invited by them to set up new industries, cheap industrial credit must be provided by them, and export drive must be supported by them. Therefore, it is unfortunate for a newly developing country if its government believes in *laissez faire*, whether from philosophical conviction or from indolence. England and Japan could not have industrially advanced so much and so early if respectively Burleigh in the reign of Elizabeth I and Japanese governments at the end of the nineteenth century would have put too much reliance on *laissez faire*.

Government's excessive zeal to regulate the economy may also retard industrial growth. A government can hardly

substitute for the initiative and common sense of its people. An attempt to do so by preventing people from exercising common sense and initiative will almost certainly obstruct industrial growth. Colbert was mistaken to prescribe the width of cloths, and the U.S.S.R. government to repress the private retail trade. But for their too much interference the two economies would have advanced still more. The search for a golden mean between too much nationalisation and too little, and between too much planning and too little is really an important economic problem of the newly industrialising economies.

Governments may obstruct industrial growth by using too much or unwisely the resources of the community. Community's resources fit for industrial growth may be grossly misused for the construction of pyramids and Tajmahals. Greater will be the obstruction (to industrial growth) if pyramids and Tajmahals are constructed by the help of the proceeds of taxes which blunt incentives to growth.

Last but not the least, governments obstruct the industrial growth by waging unsuccessful aggressive wars, or by successful wars which fail to fetch adequate concessions to cover the cost of war. It is a hard fact that war kills off many intelligent and enterprising young men and women, keeps down the capital formation and strengthens the power of the military-minded *vis-a-vis* the industrially-minded. But for the two world wars, Germans would have prospered a lot more.

4

ROLE OF STATE IN FINANCING THE INDUSTRIAL GROWTH OF UNDER- DEVELOPED COUNTRIES WITH SPECIAL REFERENCE TO INDIA

THE WHEREWITHAL or means required to provide all the necessary buildings and machinery, plant and equipment, tools and implements; and other accessories or aids essential for setting up an industry and procuring raw materials, stores and labour; and the power dues, taxes, transport charges, etc. from part of the finance needed for setting up and running an industry. In other words, the wherewithal needed for establishing and running an industry forms the very core of industrial finance.

Financing is a generic term applicable to all forms of capital investment. But 'Industrial Finance', as distinguished from Commercial, Agricultural, or Services and Utilities financing, has some peculiar characteristics. These peculiarities highlight some essential differences between the finance required for industry proper and that required for other forms of productive enterprises, such as agriculture, commerce, services, etc. As compared to other productive enterprises, industrial finance by its very nature is a long term investment.

It is true at least in that part of it which takes the form of "fixed capital" sunk in buildings, plant, equipment and machinery which usually last for a pretty long time. In other forms of production, usually, the produce will, so to say, replace and renew the capital initially invested in a comparatively short time and therefore there takes place very little of long-term locking up of capital. Second distinguishing feature of industrial finance, particularly in a planned economy, is that it is a productive investment in the sense that it is expected to reproduce itself in the process of its employment, and so to renew and replace itself from time to time. In course of time such new production is likely to far outweigh the amount employed to start with. What is expected of it is not only profit to those engaged in the process of production but also a surplus for building up a reserve to make provision for renewal and replacement of initial investment. This sort of reserve is an indispensable feature of all properly organised enterprises. But in under-developed countries, particularly in the beginning, industrial finance is not always productive of a surplus. On the contrary, it is often a failure concealed in a variety of ways. Equally interesting is the third peculiarity of industrial finance. Though in past such financing was almost entirely done by the individuals engaged in any given industry, in modern times it (industrial finance) is not provided in the bulk by those who work the enterprise.

Our next task here is to analyse the increasing importance of industrial finance. Finance is the lifeblood of modern industry and its vital need is doubly realised where it is lacking as in the under-developed countries. Financing is a form of employing capital, with which all productive operations are carried out. Without it the wheels of modern industrial system cannot be greased. Though enormous importance of industrial finance was realised even before the 'First World War', it assumed special importance in the post-War period. The economic position of a large number of countries was badly shattered by the war of 1914-18. An unprecedented economic wreckage had piled up during the war. Wanton destruction of factories, plant and equipment had taken place.

Rehabilitation, reorganisation, modernisation and expansion of old industries necessitated a huge amount of industrial finance. Besides, there was an urgent need of industrial finance for the establishment of new industries.

The post-war competition in world market had also posed a great problem of industrial finance. Belligerent countries were trying very hard not only to regain their lost trade but also to increase it, if possible. Hence, there was an urgent need of boosting up the export industries on an emergency basis. This realisation was so great and urgent all over the world that it engaged the attention of even the Government of the U.K. which had very little to do with these things in the past. It went to the length of appointing an important committee to consider the best means of meeting the needs of British firms after the war, with respect to the financial facilities for trade and particularly for overseas contracts.

India was no exception to this general urge for industrial upsurge all over the world. India had even better reasons for it. There was a widespread feeling in India that inspite of her enormous wealth and variety of raw materials, she was continuing to be a predominantly agricultural country. Instead of using these materials for her own industrialisation, she was only exporting them to enrich the industrial and economic development of other countries, particularly the U.K. The pinch of this irony of the situation made Indians to clamour for the rapid industrialisation of this country. And this clamour in its turn brought into prominence the urgent need for industrial finance which is the very life-blood of all industrial activities.

The tonic of war had fostered a large number of new industries. In the post-war period a considerable amount of industrial finance was needed for reconditioning, overhauling and extension of old as well as new industries. The Industrial Commission which submitted its report in the year 1918 emphasised the great need for industrial finance and it further stressed for the first time the desirability of setting up specialist institutions for industrial finance.

In the post-war period the great industrial depression gave

further fillip to the general demand for specialist institutions for industrial finance. On the one hand there was a growing realisation of the fact that inadequacy of financial facilities had considerably intensified the prevailing industrial depression and on the other hand ideas were gaining ground that the banks were not doing their best to help the industries. Both in India and England the banking system and the relations of banks to industry came in for some very sharp criticisms. All these aroused the keenest of discussions in both the countries. In the wake of these sharp criticisms and keenest discussions the Government of India appointed a Banking Enquiry Committee in the year 1929. In the same year, in England the relations of banks to industry was made, *inter alia*, the subject-matter of investigation by the famous Committee under the chairmanship of Lord Macmillan.

The late nineteen twenties constituted a significant landmark in the institutional developments of industrial finance. In the post-war period Mortgage Banks were chosen as favourite institution for the provision of long-term industrial loans. They used to grant long-term amortisation loans on first mortgages of property. They issued bonds to raise the necessary funds to finance these loans. They successfully financed long-term operations in various spheres. Beginning in the year 1924, these industrial mortgage banks were established in many countries of Central and South Eastern Europe. Worthy of mention among them were the Industrial Mortgage Bank of Finland Ltd., the Provincial Mortgage Bank of Saxony, and the National Hungarian Industrial Mortgage Institute Ltd. Casual reference may also be made to a somewhat different institution—the National Economic Bank of Poland. In the year 1924, it was set up to assist the economic reconstruction of the new state of Poland. Though before the First World War the French Credit Mobilier (set up in 1852 as the pioneer of all industrial banking) and the Industrial Bank of Japan (established in 1902) were the most significant, conspicuous and model institutional development of industrial finance, in the Post World War I period the above mentioned industrial mortgage banks served as the new models in the

history of the development of institutional finance.

Another significant link in the history of institutional finance is to be found in the years following the great depression of nineteen-thirties. In the post depression period special attention was paid to the problem of small and medium-sized industry. The institutions set up for the purpose were basically different from the industrial mortgage banks set up in the post-war years of 1924-28. The tendency to keep the industrial mortgage banks strictly confined to mortgage lending prevented them from combining issue and under-writing business with that of mortgage lending. Nor did they subscribe to the equity capital of industrial undertakings. But in the post-depression period many specialist institutions were set up to combine underwriting and holding business with that of mortgage lending. The Industrial Credit Company of Ireland and the Netherlands Company for Industrial Financing are typical examples in sight.

During and particularly after the Second World War the problem of industrial finance assumed tremendous importance. During the war there was the problem of conversion of industries from a peace-time to a war-time basis. This problem of conversion raised a multiplicity of issues and posed the chief problem of internal war finance. After the cessation of activities there was just the opposite end-of-war problem of financing the re-conversion of industry from a war-time to a peace-time basis. Besides, there were the burning problems of plant repairs and replacements, modernisation, rationalisation, extension and rehabilitation of industries. All these strengthened the post-depression tendency of combining the business of term-lending with that of underwriting. In many cases express provision was made for participation in the share capital of industrial undertakings. These interesting developments started taking place in many countries of the world from the year 1944. The Industrial Development Bank of Canada was established in 1944. The Finance Corporation for Industry Ltd. and the Industrial and Commercial Finance Corporation Ltd. were set up in Great Britain in 1945. The

Industrial Finance Department of the Commonwealth Bank of Australia was opened in the year 1946. The Industrial Finance Corporation of India was set up in the year 1948. Provision of financial accommodation for industrial enterprises for which such accommodation is not readily available through the channels of ordinary banking is the chief underlying objective of these institutions.

These specialist institutions for industrial finance are only one of the variety of sources of supply of industrial finance. Most of the industries in under-developed countries like India raise their necessary capital through one or more of the following ways :—

1. Public or private subscription by way of shares or debentures ;
2. Public or private deposits ;
3. Internal financing or ploughing back of profits ;
4. Commercial Banks ;
5. Industrial Banks ;
6. Investment Trusts ;
7. Specialist Institutions for Industrial Financing ;
8. State-Aid to Industries ; and
9. Foreign Capital.

Our main task in this chapter also is to analyse the role of State in financing the industrial development of under-developed countries. Hence, the discussion of the role of other bodies will largely fall outside the scope of this chapter. We shall, therefore, elucidate only the (above-mentioned) seventh, eighth and the ninth sources of the supply of industrial finance. So far as the seventh source is concerned we can say that the State has played a very significant role in the development of special institutions for industrial finance. For instance, in India, which is a typical example of under-developed or developing countries, the State has played a significant role in the emergence of institutions like the Industrial Finance Corporation of India, the State Finance Corporations, the National Industrial Development Corporation, the Industrial Credit and Investment Corporation of India, Ltd., the National Small Industries Corporation and the Refinance Corporation

for Industry Private Ltd.

Our task here is not to analyse the organisation, legal aspects and the history of these institutions. A critical appraisal of their role as special financial institutions will serve our purpose here in this context. A network of these financial institutions has been established in India to fill the gaps in the supply of long-term finance to industry. The oldest of these institutions, the Industrial Finance Corporation of India was set up as a national organisation in the year 1948. With the encouragement of the Government of India, within half a decade, various State Governments in India set up State Financial Corporations. They are modeled on the pattern of the older organisation. The State Financial Corporations make loans to the medium and small-scale industries and that also up to Rs. 1,000,000. But the Industrial Finance Corporation of India deals with larger firms and makes loans above a minimum of Rs. 1,000,000. While the activities of the S.F.Cs. are confined to the territorial coverage of their respective states, the I.F.C. covers the whole of India. Approximately at the start of the Second Five Year Plan, the National Industrial Development Corporation was set up. Though it was set up with a broad range of industrial development functions, it has been operating for all practical purposes as an agency of the Ministry of Commerce and Industry for making loans for the modernisation of the jute and cotton textile industries. With governmental support the Industrial Credit and Investment Corporation of India Ltd. was set up in 1955 as a private financial organisation to make industrial finance available itself and to act as an unwriting institution. Then we find the Refinance Corporation of India which started functioning in the year 1958. It functions as an organisation to encourage and support the activities of the commercial banks in the field of medium-term finance.

It is necessary now to go into the details of how the State is trying to boost up the industrial growth of this country by the help of these special institutions for industrial finance. It has already been mentioned above that the I.F.C. provides financial assistance to large-scale industrial concerns specially

where normal banking accommodation is inappropriate or recourse to capital issue method is not practicable. Under the I.F.C. Act the phrase industrial concern refers to any public limited company or co-operative society, incorporated by an Act of legislature and registered in India engaged in mining or in the manufacture or processing of goods or in the generation and distribution of electricity or any other form of power. Later on by the help of a necessary amendment in the I.F.C. Act shipping companies were also included in the definition of industrial concerns. Small scale industrial units, nationalised industries and the private limited companies are excluded from the purview of the I.F.C. Subject to this limitation the I.F.C. is engaged in the development of large scale industries in the country. Small scale industries and the private limited companies are eligible for loans from the State Financial Corporations. The I.F.C. renders different forms of financial assistance to industries concerned. It is empowered to guarantee loans raised by industries concerned which are repayable within a period not exceeding twentyfive years and are floated in the public market. It is further authorised to underwrite the issue of stocks, shares, bonds or debentures by industries. But such securities must be disposed of within seven years. It also grants loans or advances to or subscribes to debentures of industrial concerns, repayable before the expiry of twenty five years. Moreover, it helps the industrial concerns also by acting as agent for the Government of India and the I.B.R.D. with respect to loans sanctioned by them. In addition to all these it extends guarantee with respect to deferred payments by importers who are able to make such arrangements with foreign manufacturers.

Though the I.F.C. renders help to the specified categories of large scale public limited companies and cooperative societies by acting as an issue house, underwriting agency, lending institution, guaranteeing and granting long-term loans, it is not empowered to take part in the risk capital and whenever it happens to possess shares under underwriting obligations, the maximum period for which they can be held is for seven years.

State has made a number of provisions in the very Act to strengthen the financial position of the I.F.C. which is so helpful in the development of large scale industries in the country. The shares of the I.F.C. are guaranteed by the Government of India so far as the repayment of the principal and the payment of an annual dividend of $2\frac{1}{4}$ percent are concerned. Even the bonds of the corporation have been guaranteed by the Central Government as to the repayment of principal and interest. Besides, the I.F.C. is empowered to borrow from the Reserve Bank of India for a period not exceeding 90 days against securities of Central and State governments. It is also authorised to borrow for a period not exceeding 18 months against its debentures from the Reserve Bank of India, provided the amount borrowed at any time does not exceed Rs. 3 crores in the aggregate. Moreover, it has the power to accept deposits from the public, State governments and local authorities. These are repayable after the expiry of a period which shall not be less than 5 years from the date of the making of the deposit. At any time the gross amount of such deposits is not to exceed Rs. 10 crores. By an amendment in the Act in 1952, the I.F.C. was authorised to borrow in foreign currency from the World Bank. The Central Government took the responsibility to guarantee such loans. It has been empowered to borrow from the Government of India also. In order to strengthen further the financial structure of the I.F.C., a 'Special Reserve Fund' has been created. All dividends on shares held by the Central Government and the Reserve Bank of India are credited to this Special Reserve Fund until it exceeds Rs. 50 lakhs.

The Act permits the corporation to sanction loans for a period not exceeding 25 years. But ordinarily loans have been sanctioned for periods much shorter than that permitted under the Act. Repayment is expected to be made before the stipulated time. It may take the form of equal or graduated instalments usually beginning after two to three years of the time of granting of the loans. But this is likely to prove burdensome, specially to new projects. The amortisation of the loans granted by the I.B.R.D. begins in the fifth or sixth

year. But much may not be said about the maximum period for which the loans are sanctioned by the corporation because even the I.B.R.D. extends loans for a period of 20 to 25 years.

To conclude the discussion about the role of I.F.C. in India's industrial growth a few general observations may be made here. While foreign credits are lying unutilised with the Government of India, the paucity of foreign exchange with the corporation is hampering its normal and effective role in financing the industrial growth of the country. Serious attempts should be made through the Central Government to secure a substantial amount of foreign currency loans for the corporation from institutions like the World Bank, Development Loan Fund of the U.S.A., the U.S. Export-Import Bank, etc. Besides, the corporation should be enabled to participate in the scheme for the utilisation of dollars placed at the disposal of the Government by the Export-Import Bank of the U.S.A. Moreover, necessary permission to subscribe directly to the equity and preference shares of industrial concerns will enable the corporation to find out a profitable line of investment for its surplus funds. Proper authorisation to convert its loans into equities will also facilitate such participation in equity capital. The International Finance Corporation exercises not only the right to convert its loans into share capital but also the right to subscribe to the share capital. Participation in equity capital of industrial concerns by the I.F.C. may prove very helpful in activating the capital market. To close, it may be added here that with the expansion of its business, the I.F.C. will do well to set up its own full-fledged technical and economic evaluation institution which could serve not only its own evaluation needs but also of some other specialist institutions for industrial finance.

State was not satisfied with the establishment of the Industrial Finance Corporation alone. It was contemplated to create a separate financial corporation for each State. The Central legislature, that is, our Parliament passed the State Financial Corporations' Act on the 28th of September, 1951. It authorised the various State Governments to set up financial corporations for their respective regions. After this enact-

ment sooner or later all the States established their respective financial corporations. These corporations are playing a very useful part in the industrial development of the country. They have covered the area left untouched by the I.F.C. in so far as they advance loans to most of such industries which are excluded from the purview of the I.F.C. The I.F.C. is not empowered to advance loans to the medium and small scale industries. Private limited companies, partnership firms and proprietary concerns are also excluded from the purview of the I.F.C. But all these industries are receiving loans from the State Financial Corporations (S.F.Cs). State could very well realise that one single financial corporation could not efficiently discharge the responsibility of meeting the varied financial needs of diversified medium and small-scale industries. Therefore, the idea of one separate Financial Corporation for each State found favour with the Central Government.

Now let us examine how these State Financial Corporations are helping the growth of industry in this developing country. They grant loans or advances or subscribe to debentures of industrial concerns, repayable before the expiry of twenty years. They guarantee loans raised by industrial concerns on such terms and conditions as may be mutually agreed upon. But they should be repayable within twenty years. Besides, they are empowered to underwrite the stocks, shares, bonds and debentures on the express condition of their being disposed of in the market within seven years. The definition of 'industrial concern' has been so broadened in case of S.F.Cs. that it includes not only public limited companies but also private limited companies, partnership firms and proprietary concerns. However, the S.F.Cs. are not authorised to subscribe directly to the shares or stock of any company having a limited liability, save for the purposes of underwriting. The maximum amount of loan which an 'industrial concern' is entitled to receive is 10 percent of the paid-up capital of the corporation or Rs. 10 lakhs, whichever is less. These are the financial facilities extended by the S.F.Cs.

It appears highly desirable to introduce some scheme of pooling the idle resources of all the S.F.Cs. without their complete amalgamation. Instead of making investments in governments, each S.F.C. should first make available a certain percentage of its unloaned resources to such other corporations which have a high loan-to-asset ratio and which need funds. These intercorporation loans should be on a short-term basis, preferably on a one-year or two year basis, which would give the borrowing corporation time to raise other resources. It will at the same time do away with the situation in which some S.F.Cs. are heavily loaned up and desperate for additional resources while some others have relatively large amounts lying idle with them.

The conflict between security considerations and the development purposes of the corporations is yet to be reconciled. Corporations are criticised frequently on either or both grounds. Too close and detailed questioning in the state legislatures on their (corporations') working has a conservative influence upon their operations.

Besides, these corporations are criticised for not playing any significant part in security underwriting. They ought to devote more serious efforts to this aspect of their directed activities.

Even many years after their inception these corporations are not in a position to extend financial assistance to industrial concerns on an appreciable scale. Besides, at times, red tapism results into unnecessary delay in sanctioning loans to the industrial units. Managers of the corporations are no doubt under obligation to exercise extraordinary vigilance in regard to applicants' credit-worthiness and title to the property offered as security but vigilance should not be allowed to degenerate into red tape.

To conclude the discussion about the usefulness of S.F.Cs. in industrial growth of this developing country a few words may be added at this stage. Applicants are also required to co-operate with the corporation. They should keep their accounts in a proper way and should get them audited from time to time. Besides, they ought to take due care to keep

their personal accounts separate from their business accounts. Applicants should also see to it that their business is not dominated by personal factor because the corporation will find it very difficult to sanction loan to such industrial concerns the existence of which is entirely tagged with the existence of particular persons. Before applying for loans the applicants ought to make sure that they have adequate resources to fulfil the conditions of the grant of loans. They should also realise and appreciate the limitations under which the corporations are required (under the Act) to function. They should also appreciate the procedures and formalities which have to be gone through before the loans are sanctioned. If applicants try to cooperate on these lines, the corporations can prove to be more helpful in rapid industrialisation of this developing country.

Now we pass on to the part played by the State in the emergence of another useful special financial institution, namely, the National Industrial Development Corporation. This institution is a brain-child of Mr. T.T. Krishnamachari, the then Minister for Commerce and Industry. Though it was set up on October 20, 1954, an announcement to this effect was made as early as in early October, 1953 by Mr. V.T. Krishnamachari, the then Deputy Chairman of the Planning Commission at a meeting of the National Development Council. The draft scheme for this institution was prepared by the Ministry of Commerce and Industry. It was discussed at Bombay at a meeting of the leading industrialists of the country.

The idea behind the establishment of this corporation is "the promotion and establishment of industries for the manufacture and production of plant, machinery, implements and goods of any description likely to promote industrial development and to aid and assist any industrial undertaking owned by the private companies also, with capital and other resources for establishing new industries or for running their existing business." This corporation is meant for giving priority to the manufacture of capital goods and takes up the study and investigation of industrial schemes. It also aims, wherever

possible, at maximum utilisation of industrial experience, skill and equipment obtainable in the private sector. Attempts are made by this corporation to establish such industries which ultimately result into the growth of ancillary industries in the private sector. These are the main functions of this corporation and financing is only incidental.

During the period of all the Five Year Plans, funds have been made available to this corporation and these have been utilised not only for modernising the cotton and textile industries but also for pioneering new basic and heavy industries. It took up for investigation projects like foundry and forge shops, structural fabrication, refractories, chemical pulp for rayon, newsprint, intermediaries for dyestuffs and drugs, carbon black etc. Besides, it has directed its efforts towards fostering the setting up of a new unit in the aluminium industry and the manufacturing of heavy equipment for earth moving, mining, rolls and rolling mill equipment required in ferrous and non-ferrous industries.

The purpose of this corporation is not only to extend the public sector but also to help stimulate the private sector of the industry. But it must be mentioned here that the corporation undertakes financing of industries only in so far as it is incidental to such development. It provides finance in different forms. It grants and guarantees loans and advances to industries and subscribes to, underwrites or deals in the shares and debentures of industrial concerns. Moreover, it functions as an agency of the Government for the grant of loans to any industry which the Government desires to assist.

State has played a significant part in the establishment of the Industrial Credit And Investment Corporation of India (I. C. I. C. I.) also. It was incorporated as a private limited company on January 5, 1955, though it is an important handmaid of the private enterprise; the Government of India took the lead in its establishment. The I. C. I. C. I. emerged out of a conversation which took place between the Government of India on the one hand and the World Bank and certain American financiers on the other. The Government of India made available to the I. C. I. C. I. certain dollar loans

which it (the Government of India) had received from the Foreign Aid Department of the State Department of the U.S.A. Besides, the Government of India has given a considerable amount of money to the I. C. I. C. I. as interest-free loan repayable in easy annual instalments. In several ways State has tried to help the emergence of this useful special institution for industrial finance. It has been set up a very crucial stage in the industrial growth of the country. It is performing a task which a capital market in advanced countries has learnt to do after a long lapse of time and through a painful process of trial and error.

Details regarding the main functions of the I. C. I. C. I. will give an idea of how it is proving helpful in the industrial development of this country. It assists in the creation, expansion and modernisation of industries in the private sector. It also encourages and promotes participation of private capital, both internal and external, in private enterprises. Encouraging and promoting private ownership of industrial investments and the expansion of investment markets are also among the chief functions of this corporation. For the proper discharge of these functions the I. C. I. C. I. supplies finance in the form of medium and long-term loans or equity participation ; sponsors and underwrites new issue of shares and securities ; guarantees loans from other private investment sources ; makes funds available for reinvestment by revolving investments as rapidly as prudent ; and provides managerial, technical and administrative advice and helps in obtaining managerial, technical and administrative services to industries in India.

The actual importance of the I. C. I. C. I. ought to be measured not only in quantitative terms—but also in qualitative terms. We should also examine whether it fills up a gap created by the conventional sources of industrial finance. So far as this aspect is concerned there are many things worth mentioning. It has emerged as the most important underwriting institution in this country. Besides, it is working in close co-operation with other financial institutions like the Industrial Finance Corporation of India, State Financial Corpora-

tions, Life Insurance Corporation of India, State Bank of India, other commercial banks, and Refinance Corporation of India. So even in the absence of a formal organisation, the country is getting through the help of the I.C.I.C.I. the advantages of consortium underwriting. Besides, it has established contacts with international institutions like the International Finance Corporation, Commonwealth Development Finance Company and some significant investment banks and institutions in West Germany, the U.K., and the U.S.A. It is also helping the establishment and growth of an investment centre for encouraging and promoting participation of private foreign capital in India.

The I.C.I.C.I. has stolen a march over the I.F.C. in ways more than one. Ever since its inception it has access to foreign exchange. It is a private organisation not responsible to the legislature. Hence, it has a greater degree of flexibility. The I.F.C. is by and large meant for direct lending but the I.C.I.C.I. plays a predominant part as an underwriter in the capital market. But direct lending is also one of its functions.

Prior to 1959 the I.C.I.C.I. had a normal lower limit of Rs. 5,00,000 for one loan but in 1959 this limit was reduced to Rs. 1,00,000. This change in the lower limit not only permitted small foreign exchange loans for imports but also opened the gate for loans to small firms which offer opportunities for foreign exchange savings and high return from their operations. The upper limit for its loan commitment in any single undertaking is Rs. 10 million.

Since I.C.I.C.I. has advantages of flexibility and independence over I.F.C. it should not be too much rigid with respect to security requirements, loan provisions, and the like. Besides there ought to be increasing efforts on its part to finance new as well as existing and well-established entrepreneurs. It should also widen its area of financing to include increasing number of smaller and medium-size industrial firms in India.

Casual reference here may also be made to the National Small Industries Corporation which was set up in February 1955. It was established with a view to financing, assisting,

protecting and promoting small-scale industries in the country. It is concerned with many aspects of the small scale industries in this country. But so far as financing is concerned its function is not only to grant loans but also to underwrite and guarantee loans from banks and similar institutions to small scale industries in India.

National Small Industries Corporation was registered as a private limited company with an authorised capital of Rs. 10 lakhs to be provided solely by the Central Government. It will also give suitable loans to provide it with working capital.

Now, we pass on to examine how the establishment of the Refinance Corporation For Industry Private Limited is a new feather in the cap of the State which has been doing a lot in India for the growth of special financial institutions for industry. It is praiseworthy that at a time when the commercial banks seemed to be desperate for funds the State planned to set up this Refinance Corporation to provide refinancing for the normal commercial banks for medium-term (say from three to seven years) loans of moderate size (up to Rs. 50 lakhs) for medium and large-size industrial concerns for directly productive purposes. The uniqueness about this special financial institution is that lending bank bears the full risk of the loan and the responsibility to repay the Refinance Corporation.

But in future the Refinance Corporation can be used as a source of greater liquidity. Besides, it will not only increase the commercial banks' actual medium and long-term lending but also allow them an opportunity to expand their loans to new entrepreneurs and firms. But it is yet to be seen how far the R.F.C. succeeds in encouraging banks to increase their supply of medium-term finance to marginal would-be borrowers.

After having examined how many and how much useful specialist institutions for industrial finance the State in India has planned and cared to develop, we shall now try to see how far the State has directly helped industrial growth by the help of State-Aid to Industries Act. A study of industrial finance

in India reveals that in the beginning of British rule in India, the industrial policy of the State here was buttressed by the English economic philosophy of *laissez-faire*. But with the break of the First World War the old doctrine of *laissez-faire* broke down. The exigencies of war brought about a new orientation in the relationship of the State and industry. The economic philosophy of *laissez-faire* was discarded. England also discarded this philosophy to a large extent.

This basic change in the economic philosophy led to the appointment of the Industrial Commission in India in 1916. The Commission gave a number of suggestions regarding State's role in the field of industrialisation. It suggested not only various indirect ways in which the State could give fillip to industries but also some direct ways in which it could help the industries to grow. The supreme importance of State-aid to industries was emphasised in the report of the Industrial Commission. As regards the financial assistance to large-scale industries the commission suggested that the State should guarantee dividends, give loans of money, undertake to purchase their produce, and subscribe to the share capital in special cases where adequate private capital was not forthcoming. But these assistances were to be given only when it was in the broader national interest to help an industry. If the establishment of a new industry or the improvement of an old one was necessary in the interests of national safety or in the interest of general economic development of the country the State might (according to the Commission) give the above-mentioned financial help. Besides, such assistances could be given also where consumers or producers were to be benefitted by the extension of an old industry to a new locality. With regard to small and cottage industries the Indian Industrial Commission suggested that State assistance might take the form of direct loans and supply of machine on the hire-purchase system.

Prior to publication of the report of the Indian Industrial Commission (1916-1918), the Provincial Governments had taken very little interest in the industrial development of the country. It was only after the publication of this report that

the era of a systematic State-aid to industries set in. Credit goes to the Madras Government for taking the lead in acting up to the recommendations of the Indian Industrial Commission. Other Provincial Governments followed suit. The Madras State-Aid to Industries Act was passed in the year 1922. The Bihar and Orissa State-Aid to Industries Act was passed in 1923. It was in the year 1931 that the Bengal State-Aid to Industries Act was passed. On the lines of the Madras, Bengal and Bihar Acts, a State-Aid to Industries Act was passed by the Legislative Council of the Central Provinces also. It was brought into force on the 1st September, 1934. In the year 1935, the Government of Bombay framed rules for giving financial assistance in the form of loans to the small scale industries. In the Punjab, the Industrial Loans Act was passed in the year 1923 to afford direct financial assistance for the development of industries. In some form or the other almost similar efforts were made in other provinces also to give direct financial help for the development of industries. Ever since the year 1921 the U.P. Government has been giving financial assistance to industries. It has usually taken the form of grants and loans. The Government of the United Provinces appointed a committee under the Chairmanship of Sir Thomas Smith 'to examine and make recommendations upon the subject of establishing an Industrial Bank in the United Provinces.' One outcome of the recommendations of this committee was the establishment of a Board of Industrial Loan Commissioners in the year 1922. It was set up to supply principally small industrialists with capital upon easy terms. The Government of the United Provinces took a very significant step in 1934 by appointing an Industrial Finance Committee consisting of banking and commercial experts. The report of the committee was published in 1935. The committee recommended the establishment of two special institutions, one each for financing (i) the major and minor industries and (ii) the cottage industries.

By the help of these measures and particularly through the State-Aid to Industries Act State has tried to give fillip to the industrial growth of the country. But the history of the

State-Aid to Industries in India has a sad tale to tell. Under the provisions of the State-Aid to Industries Acts, the State has tried to help the industries usually in one or more of the following ways :—

- (i) by granting a loan ;
- (ii) by guaranteeing a cash credit, overdraft or fixed advance with a bank ;
- (iii) by making plant available for industries on the hire-purchase system ;
- (iv) by subscribing for shares or debentures ;
- (v) by paying a subsidy for the conduct of research and purchase of machinery ;
- (vi) by making a grant on reasonable terms of land, raw materials, water, fire-wood, etc.
- (vii) by guaranteeing a minimum return on part of the capital of a joint-stock company.

Analysing carefully the reasons for the failure and disappointing results of the State-Aid to Industries Acts in various provinces (now States) of India we arrive at the following conclusions :—

(i) In the beginning the Departments of Industries had very little experience in the working of the State-Aid to Industries Act.

(ii) They could not cautiously plan the investments and spread out the risks. On the contrary the success of the working of the Acts was bound up with the fortunes of a few concerns. The imprudent policy of advancing so heavily to a few enterprises was against the basic principle of industrial finance.

(iii) Red tapism has also brought discredit to the State-Aid to Industries Acts. Inordinate bureaucratic delay has usually contributed to the disappointing financing results of the Act.

(iv) Lack of proper co-ordination between the Provincial (now State) and the Central Government's industrial policies has in no small measure contributed to the unhappy history of the working of the Acts in India. The tariffs, railway rates, currency and exchange policies should have been so designed

by the Central Government as to fall in line with the programmes of industrial development chalked out by the Provincial (now State) Governments.

(v) The absence of a suitable and efficient machinery to disburse public funds after careful investigation and proper assessment of the credit-worthiness, soundness and prospects of the enterprises applying for State-aid has been to no small extent responsible for the unhappy history of State-aid to industries in India.

(vi) To crown all, the widespread slump which followed the post-war boom caused industries of every description, private as well as State-aided, to suffer under it. Not only the State-aided industries but also the private industrial enterprises were barren of adequate results.

The history of State-aid to industries in the Native States is in sharp contrast to the disappointing results of State-aid in the various provinces of British India. The secret of the success of State-aid to industries in the Native States lay principally in the all-round policy of encouragement and the definite attitude of moral support adopted by the States. Besides, their industrial policy did not suffer from the handicaps of division of functions and lack of co-ordination between the Provincial and the Central Governments with regard to the industrial policies.

We learn a good lesson from the history of the State-aid to industries in different Native States and in Japan. It is quite evident [from it that the State-aid to industries cannot only be a financial success but can also sufficiently promote industrial development. What is required is to discard a haphazard piecemeal policy and to adopt a well-planned carefully thoughtout comprehensive and balanced policy of providing State-aid to industries. Then only we can legitimately hope it to be crowned with success. It has borne brilliant fruits in Japan and will bear equally brilliant results in India too provided we learn the above lesson and give it a fair trial once more. Since we have given a final burial to the policy of *laissez-faire* and adopted instead a policy of comprehensive and carefully-thoughtout economic

planning, it is only in the fitness of things that we allow another chance to the policy of State-aid to industries in India. But this should not be without conditions. First, the State-aid should necessarily be a temporary measure, and not a permanent feature. The artificial prop of State-aid should at best enable the industries to stand on their own legs within a reasonably specified period of time. The medicine should not be allowed to be daily food. Secondly, State-aid should be furnished through a bank (like the Industrial Bank of Japan) rather than through the Department of Industries. Thirdly, the cumbersome and time-consuming method of granting help under the State-Aid to Industries Act should soon give way to quick and simplified methods of it. Fourthly, persons making misuse of facilities granted under the provisions of the Act should be severely dealt with and taken to task. Fifthly and finally, facilities granted under State-Aid to Industries Act and other measures combined together should be able to render full and not half-hearted help to the needy industries. Half-hearted measures will surely defeat the very purpose for which they are taken.

5

ROLE OF STATE IN INDUSTRIALISATION OF SOME COUNTRIES

POSSIBLE HINDRANCES to rapid industrialisation of developing countries have been discussed and analysed in one of the preceding chapters. In this chapter a brief reference will be made to the role of State in removal of these hindrances in some important countries, viz. Japan, the U.K., Germany, France, the U.S.A. and the U.S.S.R. Here one may be tempted to widely comment on the industrial progress of these countries but it will be in the fitness of things to confine the discussion mainly to the part played by the governments of these countries to remove the said hindrances.

Role of State in Industrialisation of Japan

Let us start with the role of the Japanese government in removing these hindrances to rapid industrialisation of Japan. In Japan the State has played a vital part in the industrial development of the country. There are three distinct phases of State's role in relation to industry in Japan. At the very outset the State played the role of the entrepreneur and started industries on its own account and initiative and supervised them. It established experimental factories for the manufacture

of railway, telegraph, telephone goods, silk, cotton, woollen yarn and tissues, chemicals and glass from the funds raised in foreign countries. Besides, it helped the industrial undertakings in the private sector. Not only funds were raised in foreign lands but foreign technicians (mainly Dutch, German, French) were invited and employed on high salaries.

But in course of time when State industries were well on their way, they were transferred by a suitable law to the private sector and the State confined itself to giving all possible patronage to them. A few families monopolised these industries in Japan and these concerns were named after these families. Among these the leading ones are MITSUI, MITSUBISHI, SUMITOMS AND YASUDA.

Professor Allen says "Although the State itself established and for some time controlled the majority of the industries and commercial services which now exist, it did not retain the ownership or administration of them once they were firmly rooted." But the government did not completely withdraw from ownership of industrial concerns and even to this day it retains its interest in the mining and heavy industries.

The second phase of its policy began after the Sino-Japanese war. Since then the State began to play the role of industrial financier. It helped industries in some indirect ways as well. Having control over banking, tariff and taxation policies, the State could successfully direct the resources of the nation in the desired channels. It also subsidised many industries the rapid development of which was essential in the interests of the nation. Necessary finance for old and new industries was made available to them through the Industrial Bank of Japan. To encourage their development capital goods industries were taxed very lightly. Revision of the commercial treaties (signed in 1858) was completed in 1899 and after that the State gave protection to Japanese industries which were threatened by foreign competition. Besides, subsidies were liberally granted to the needy industries. Ship Building Encouragement Act of 1896 was designed for giving bounties to the construction of ships. Shipping lines were subsidised with the help of the Ocean Service Subvention Act

of 1909. This is an instance from among a large number of industries which received subsidies. Public debt was very small and so the State could easily undertake the financial burden of giving subsidies. Even today it forms a part of the industrial policy of Japanese Governments.

Besides, the State to its credit established the Bank of Japan in 1882 and the currency was reorganised by giving the monopoly of note issue to it. For the organisation of guilds of industrial groups rules were framed in 1884. With a view to finance the foreign trade the Yokohama Specie Bank was started in 1887. In 1890 Commercial Law was enacted to regulate the industrial and commercial enterprises. Hardly after the lapse of three years the Bank Act and the Stock Exchange Act were passed to organise the money and capital markets on sound lines.

Thus by 1893 experiments were over and the paid up capital of all companies in the year was nearly 232 million Yen nearly twelve times the figure at the beginning of the period.

Here one is tempted to discuss the effects of the Sino-Japanese war and the Great War on Japanese industries, but that is not a part of our job. Here we are mainly concerned with the role of the State.

The third phase begins with the start of the post-war years. During the war and in the post war inflation period Japanese industries had progressed and developed very rapidly and their capacity to produce was far in excess of the needs of their markets. Over production had become a great headache or crisis. Hitherto government had indirectly encouraged production and progress but now she started the policy of intervention, with pure desire of reorganising the industries. With the passage of the Export Industries Association Act in 1925, the first step in this direction was taken. It was intended for centralising control in the Export industries, specially, the small and medium sized ones by forming associations to control equipment, production and sale. Government thought that in their own interest to do away with over production and internal wasteful competition large industries would come

to voluntary agreements. But industries belied the hopes of the government because inflation was raising prices and so industries had no desire to combine and resort to rationalisation measures.

Considering inflation to be at the root of all evils the government embarked upon deflationary policy. But instead of some improvement the situation worsened and the confusion was worse confounded and a crisis was brought about in the year 1927. No doubt some industries were driven into cartel agreements in the two succeeding years but the crisis of 1929 again affected them adversely and very seriously. In these great catastrophic moments industries looked to the State for help. The government established the Industrial Bureau of Rationalisation (in 1930) to study and enquire into all significant matters relating to rationalisation of industries and to other measures necessary for the promotion of industries. Centralised control was established over small and medium sized industries by forming national federations. But many industries had not formed cartels and many others who had formed them violated agreements. Hence Export Industries Association Law of 1925, originally meant for small industries, was amended in July, 1931 and was made applicable to large industries as well. Amended law was named as Industrial Association Law. But even this law could not make the industries avoid their internal competition neither did they take to rationalisation measures. Hence with the purpose of bringing about cartel agreements among industries so as to control their production and price, Staple Industries Control Act was enacted in 1931 and the Bureau was entrusted with its administration. If two-thirds of the members of a cartel made an application to the effect, the government could force the dissentient units to join the cartel. Besides, in the national interest the State could make some changes in the cartel agreements, if necessary. After it was passed, this most comprehensive law (allowing government intervention in private industries) was applied to as many as twenty two industries.

Later on this law developed to be a great instrument of intervention in the hands of the government. As long as the

business had sufficiently great influence on the government there was little opposition to this policy. But with the establishment of influence of Army and Navy on the Government liberal tendencies in economic activities were looked down upon by the Army and Navy. Staple Industries Control Act was utilised for increasing State intervention in industries. They started organising the economy of the country on a quasi-war-time basis (Junseuji Keizai). The old family groups (Zai-batsu) strongly resented but other groups supported the government to go ahead with its policy.

With a view to setting up the Japan Iron Manufacturing Company to take over as many as six private concerns and the State's Yawata Works law was passed in the year 1934. Besides, by the help of the Petroleum Industry Law of 1934 and the Shipping Route Control Law of 1936 the Government assumed control respectively over the petroleum industry and shipping. Thus in recent years the State has subjected the industries to strict governmental control, though not without opposition. To surpass all, the outstanding event during 1938 in the sphere of government intervention was the passing of the General Mobilisation Law in the spring. This law gave the State almost unlimited powers of control. A compulsory registration of persons with certain special qualification was ordered, and a licensing system was introduced to regulate the employment of persons whose services were particularly valuable to the industries, for example, technical graduates of the universities.

Without any shadow of doubt the State has always tried to rise to the occasion and play its effective role in removing hindrances to rapid industrialisation of Japan. In this context special reference may be made to the following facts: The Government stimulated the development of iron and steel industry during the war period by exempting the newly constructed plants from business and income taxes (direct taxes) for a period of ten years from July 1917. Besides plants with a capacity in excess of 35,000 tons were allowed to import iron ore and construction materials free of import duty. The number of plants multiplied almost three times during the war-

period. In addition to all these the government had set up, in the year 1914, an organisation known as the society for the Encouragement of Home Manufacturers (Kokusan Shoreikai). During war-period it drew up schemes for the training of skilled workers for the engineering and mining industries ; and as a result of these, special training schools were established while certain factories were acquired to provide for the training of large number of workers of this type. Besides, we have already referred to the establishment of Industrial Bank for Japan, organisation of money and capital market etc. To conclude, it may be remarked that in Japan the State has played a very dominant role in removing hindrances to rapid industrialisation of the country.

Role of State in Industrialisation of the United Kingdom

Coming to England we may say that the speciality of British industrial development in the nineteenth century lay in the fact that it owed practically nothing to State aid. The English inventor received neither capital nor encouragement from the authorities. Paternalism of the Prussian and French governments was strikingly absent in Great Britain. England did not have anything like the 'Gewerbe Institute' of Berlin (to which detailed reference will be made in the following pages). Not merely was the introduction of machinery into the United Kingdom and the consequent remodelling of industrial life due to the efforts of private individuals working with their own or borrowed capital, but they were equally free from any government restrictions as regards wages or conditions under which the employees should work. All these had been swept away finally in 1813, though obsolete long before. Only when it was a question of compulsory acquisition of property for railway or canals that the sanction of Parliament was obtained.

Apart from the non-existence or early disappearance of serfdom in Great Britain, the reason for her different industrial evolution (as distinguished from that of France, Germany and similar other countries) was to be found first of all in the poverty of English monarchs. Queen Elizabeth I had a royal

income which hardly ever exceeded £ 3,00,000 a year and with that she had to manage the entire affairs of the State. Charles I's income was in the neighbourhood of £ 5,50,000 a year and he was crippled for money. His annual expenditure between 1630 and 1642 far exceeded (*i.e.* expenditure amounted to nearly £ 8,50,000 a year) his annual income. Professor Knowles has rightly pointed out that 'the English monarchs might bless an enterprise but they could take very little share in it'. On the other hand the righteous Puritans of England had very few things on which they could really spend their money without sin and therefore they became an excellent vehicle for the accumulation of capital.

The English people saw in the year 1649 the execution of an English Monarch (Charles I) and this meant the destruction of the king as the guiding power in economic life. After that Parliament was supreme. Parliament, being then an unwieldy body of a large number of country gentlemen, gave the English industry a green signal to work itself out in its own way unhampered. It confined itself to see that there was a high protective tariff and wide overseas markets. To conclude, it may very well be remarked in the words of Knowles that 'A peculiarity of British industrial development in the nineteenth century lay in the fact that it owed practically nothing to State aid'.

Role of State in Industrialisation of Germany

Now let us come to the role of State in industrialisation of Germany. There is a great contrast between the individualism of Great Britain and the paternalism of France and Germany. The English inventor received neither encouragement nor capital from the authorities whereas in both Germany and France the State afforded immense assistance. Remarkable are the energy and interest shown by the Prussian Government in bringing the knowledge of English machines to the very doors of its people. Here is a statement given by a witness before the Royal Commission on the export of machinery in 1841. 'I found at Berlin the most enterprising and systematic exertions made on the part of the Government to obtain a

command of the manufacture of machinery. I found no expense spared for that purpose and the exertions quite astonished me. There is one very important institution at Berlin called the "Gewerbe Institute" which is a large establishment for practical education combining design with almost every branch of manufacture into which science and mechanics enter. In going through the room of this institution with the Professor I saw suites of apartments completely filled with models of English machines. The Professor informed me that they had in it models of every machine in use in Great Britain for the manufacture of cotton, flax, silk and wool and likewise a number from America and Germany, that by these means they were enabled to have our recent improvements but what was a matter of importance which we cannot command is that they were enabled frequently to combine in the same machine two distinct English patents."

"The system, he told me, that this Machinery as soon as produced in England was immediately imported at the expense of the Government and set up at the "Gewerbe Institute" that it was proved that a working model was immediately made from it to be deposited in the institution and that the original was presented as an honorary prize by the Government to some manufacturer in Prussia who had distinguished himself in the peculiar branch to which it was applicable. In the 'Institute' likewise the pupils were taught to make the machinery themselves, they were supplied with the tools and they were permitted to carry away the machines which they themselves had constructed."¹

This extract is an instance of the paternalism of the Prussian Government and its direction of industry and technical education especially when contrasted with English *Laissez Faire* methods. Lack of capital, destruction of economic life, poverty of initiative and the traditions inherited from the days of feudalism and serfdom caused the governments of Prussia, France and Russia to take the lead in encouraging, introducing or organising the new

¹ *Royal Commission, 1841—VII, page 87.*

methods of either industry or transport in the nineteenth century. German industry has continuously owed a great deal to the state, especially in the matter of technical education and encouragement. The extract quoted above reveals how easily and with what earnestness and vigour this tendency manifested itself in the nineteenth century.

Role of State in Industrialisation of France

Coming to France it may be remarked that ever since the days of Henry IV, the French manufacturers were accustomed to look to the Government for assistance. In 1642 Richelieu died, having completed the destruction of the political power of the nobility, having created a great economic administrative instrument of control for the king in intendants and having made the royal power the greatest thing in France. It was therefore inevitable that the monarch would direct the industry and trade. The French king was wealthy and he could give financial assistance when he chose. After 1660, French economic life was reorganised by Colbert along the lines of royal autocratic control and the entire French industry looked to the monarch for encouragement, regulation, direction and inspection. Revolution destroyed the tradition of State assistance. But it was revived by Napoleon. The collapse of industry in France at the time of the Revolution had been so great that it was only by Napoleon's personal efforts and financing that machine industry could be restarted. But it may be pointed out that it was quite in accordance with the French tradition that the State should help manufacturers and above all make provision for good transport facilities.

In all the countries of Europe the agricultural population a large proportion of whom were still serf in the year 1780, had looked to the feudal lord for justice, employment, guidance and maintenance. This habit of dependence on the authorities could not be easily done away with and there is a much stronger tradition of paternalism and State control and regulation in France and Germany than in Great Britain. As a matter of fact people cannot be suddenly deprived of

guidance. Besides, the French Government had to take the lead in encouraging, introducing and organizing the new methods of either industry or transport in the nineteenth century. Lack of capital, destruction of economic life, poverty of initiative and the traditions inherited from the days of feudalism and serfdom caused the Government of France to take the initiative and lead in encouraging, introducing and organising the French industry.

France received some thing like the Puritan stimulus in the year 1789. Her faith in liberty, equality and fraternity counteracted the effects of late emancipation from feudalism. Frenchmen started believing in the principles of the Glorious Revolution. Once capital was accumulated again and political life had become fairly settled, French industry owed little to the State except good transport facilities. Though machine industry later on developed along the lines of *Laissez-Faire*, it had required State aid to restart.

In France, the two conflicting ideas of freedom and control had been active at different times and in different ways during the eighteenth and nineteenth centuries and more specially in the nineteenth century. But the interesting and noticeable thing is that both Great Britain and the United States have tended to develop in the direction of increasing State control. France and Germany, autocratic by tradition have also marched in the same direction.

Role of State in Industrialisation of the United States of America

In the history of industrial development in the United States between 1861 and 1914 there seems to come a dividing line about the nineties. Till that time there was a period of unrestricted growth and unrestricted competition which frequently led to trusts and combines. After that there is a period of controlled development, as revealed by the government regulation of trusts and the policy of government conservation. The Spanish American War of 1898 created a feeling of unity and in war time America got accustomed to the idea of government direction. Railways and trusts were brought under control.

Even before the nineties, behind tariff walls was built up a great iron and steel industry, and also great silk and cotton industries. Though there were several causes of this rapid development, tariff walls played a very dominant role. The enormous internal market secured to the American manufacturers made it worthwhile to introduce improved methods because of the very security of the home market. To quote late Mrs. L. C. A. Knowles it may be said that "During the period of controlled development from the nineties to 1914 industry continued its phenomenal growth. The value of manufactured products, which had been 1886 million dollars in 1860 and 9372 million dollars in 1890 rose up to 24246 million dollars in 1915. New industries opened up, old ones expanded and all the while the home market continued to extend."¹

The Sherman Anti Trust Act of 1890 and Clayton Act of 1914 were passed as antidotes to the then trusts rampant in the U.S. The regulation of railway rates by means of the Inter State Commission (which was set up first of all in 1887) was another example of more successful State Control.

Knowles has rightly remarked that the history of American iron trade is the history of transportation. Besides private persons State has also played a significant role in the construction of turnpikes, roads, etc. Congress constructed the National Road which ultimately by 1840 extended from Pennsylvania to Vandalia, Illinois. The funds for canal building were partly obtained by the States from the amounts the Federal Government gave them in respect of the sales of the public lands. But this being not enough, the States began to pile up debts. (Though after the financial crash of 1837 State Governments prevented themselves from such enterprises so that railways were built up by private enterprise).

Role of State in Industrialisation of the U.S.S.R.

Russia began to modernise her industries only after the middle of the nineteenth century. Most outstanding factors

¹ Knowles—*Economic Development in the Nineteenth century*, page 203.

which led to the modernisation of the Russian industry were three in number, namely the emancipation of the serfs, the coming of the railways, and the transition from the natural to a money economy. In all three fields the State played a significant role.

In Russia though the serfs were freed in the eighteen sixties, the full implications of this freedom, that is freedom of movement, free choice of occupation, individual ownership and user of land, were not realised till after the revolution of 1905. Influenced by the French ideas, Alexander I, who was nothing if not liberal, favoured the emancipation of serfs. But he was succeeded by a reactionary Czar, named Nicholas. But Nicholas was succeeded by a liberal Czar Alexander II who took up the cause of freedom of serfs and really intended to modernise Russia. He exhorted all nobles of Russia to follow the example of Lithuanian nobles who had appealed to him to be allowed to revise the working arrangements with the serfs. The Czar started with the presumption that the Lithuanian nobles were asking permission to free them (serfs), which they were not. In a way he ordered for their emancipation by laying down principles on which such an emancipation should take place. Though serfs were emancipated and this later on immensely helped the cause of modernisation of Russian industry, the great idea behind it was to avoid the creation of a class of landless and homeless wanderers. Formation of a proletariat class was the nightmare of those who were going to carry out the emancipation.

Any way, between 1861 and 1865 the serfs were freed. But it was only after the revolution of 1905 (when the 'Mir' or commune ceased to be financially responsible enbloc) that the serfs were really free. Before 1905 they could leave the land and take up a trade only after the passport of the 'Mir' or commune.

Emancipation of serfs facilitated the supply of labourers to the newly set up industries. And the State had played the above mentioned significant role in emancipation of the serfs of Russia.

The advent of railways was the second important factor

leading to modernisation of Russian industries. There is hardly any other country in the world to which railways have meant or will mean so much as to Russia. In Russia the railways compensate for the lack of coast, they counteract the ice and the drought, they unite the vast areas of the country and they facilitate the transport of bulkish goods. The railway made possible the expansion of Russian industries by permitting the Russian manufacturers to reach the wider markets of Asia. It made fuel available and helped the exploitation of iron, coal and petroleum deposits. Railways were responsible for connecting the South (which needs the wood of the North) with the North (which needs the grain of the South). So in Russia railways have been a great economic force in developing industry on the one hand and making the cultivation of the Black Earth Zone possible on the other. It has been a great factor in extending the trade of Russia in the East.

Now we have to scrutinise the role played by the State in the opening up of railways which have played so important a role in industrialisation of Russia. In 1809, Alexander I set up the Institute of the Means of Communication and staffed it with French engineers and professors sent by Napoleon himself.

Though the first line had been built by the private enterprise, the line from St. Petersburg to Moscow was constructed by the State. After the Crimean War the right to build railways was given out to private companies but the State guaranteed the capital of the companies. But after the exposition of the abuses of the guarantee system, the State took a closer interest in the management of the railways and when the leases fell in the Government took the lines over. Accordingly the lines under the control of the State rose from 23·5 per cent in 1889 to 60·5 per cent in 1900 and 67·5 per cent in 1913.¹ Realising the primary importance of railways in Russia, Count Witte showed great energy and vigour in taking over railways and developing new lines, so as to build up an adequate Imperial system.

¹ M.S. Miller—*Economic Development of Russia (1905 to 1914)*, page 183-4. 208.

In Russia, the State not only supervised the building and management of railways but also it went to the length of controlling the rates. In 1889, the Government brought railways rates under the control of a special Tariff Committee. This Committee, in course of about five years, overhauled and unified the whole system. So we find the State having played a very active and prominent role in the establishment of railway (in Russia) which is one of the few outstanding factors leading to the industrialisation of Russia.

Now let us come to the third important factor which helped the modernisation of industries in Russia or the industrialisation of Russia. This third factor was the introduction of money economy. Before 1850 money was conspicuous by its absence in Russia. But Peter the Great (1689-1725), the father of industrialism in Russia, as a result of his travels in Europe was very anxious to develop Russia along the lines of the mercantilist system. He wanted the Russian exports to exceed its imports so that money should flow into Russia. Prohibitive tariffs were imposed to prevent the buying of foreign manufactures and to stimulate the Russian exports. In this way he expected that there should be a balance payable in bullion. But his policy was not a success due to the self-sufficing nature of the Russian economy.

When Russia began to export wheat to England through Odessa, the foundation of a money economy was laid. Russia received the bullion in turn and was able to raise the looms which were necessary for introducing money payments. Finally by emancipating the serfs, the State necessitated a money economy. Freed peasants had to pay taxes in cash and not in kind. Therefore the land had to produce a surplus which could be marketed and converted into cash. During the remainder of the nineteenth century the Russian Government was always preoccupied with the idea of bringing about a favourable balance of trade and to keep within the country the bullion which was the necessary basis of money economy.

The State in Russia was keenly associated not only with the aforesaid three great factors leading to industrialisation of Russia but also with some other factors which immensely

helped the cause of industrialisation in Russia. For instance it granted special privileges to factory owners. They were free from military service and the State was a great purchaser of their produce.

Essentially speaking there was no special class of manufacturers in Russia. Manufactures were primarily either an aristocratic or a State affair. Aristocratic manufacturing concerns were immensely helped by the State in various ways. For instance, in the great protectionist period after 1824 the cotton industry settled round Moscow. Besides, peasants learned the art of manufacture in the factories of the State and they in their turn taught the arts to the members of their family who remained at home and as a result of it home industry sprang up. In addition to all these, the State invited and encouraged foreign capitalists to make investments in Russia. These foreign capitalists played a significant role in industrialisation of Russia. For example, nothing seemed to make the iron industry flourish till an Englishman, John Hughes, who was given extra-ordinary privileges and concessions by the State, built iron works in 1871 in the south at Ekaterinoslav, where iron and coal belts are to be found together. Professor L. C. A. Knowles has rightly remarked in her 'Economic Development in the Nineteenth Century' that the desire to develop their own resources and attract foreign capital was the foundation idea of the protectionist movement in Russia.

One great effect of the high tariffs was to tempt in foreign capital to develop industries inside the tariff walls. The great industrial development which had got going in eighteen eighties was continued in the nineties. By inviting the foreign capital and capitalists, the State indirectly helped the diffusion of technical knowledge among the Russians and taught them to develop the spirit of initiative and enterprise.

To summarise, it may be remarked that in Russian industry strong paternalism was obvious, on the part of the State. It dated from the beginning of industry in the proprietary and estate factories. The State never hesitated to regulate even the working hours and conditions of factory workers.

Now let us go through the role of the State in industrial-

sation of Russia in the post-Revolution (1917) period. The State had to play a unique role, unique in the sense that Russia was the first country in the whole world to establish a dictatorship of the proletariat. For the first eight months, Lenin followed a policy of wait and watch. No sweeping measures of confiscation or nationalisation were immediately proposed. A policy of controlled and directed capitalism was followed. Only stray cases of nationalisation were to be found in those eight months.

But forced by the exigencies of the circumstances drastic measures of nationalisation had to be resorted to. Many factory committees went beyond the legal powers awarded to them in the Decree on Worker's control, and eventually took the administration of factories into their own hands. This led to chaos and confusion on a large scale. Secondly, an acute civil war broke out in the summer of 1918, and this was supported by the armed intervention of foreign powers. These two were the decisive factors which brought the policies of the eight months' breathing space to a close. Already in May 1918 the pace of nationalisation, even of legal nationalisation, had quickened. The Decree of General Nationalisation of June 28th applied nationalisation by a stroke of the pen to practically all large-scale enterprises without any distinction. And so what came to be known as period of 'War Communism' was launched. But during the period of War Communism nothing very significant could be done for expediting the pace of industrialisation in Russia. Lenin himself confessed that War Communism was thrust upon them (him and his followers) by war and ruin and it was not, nor could be, a policy that corresponded to the economic tasks of the proletariat.

Then came the period popularly known as the period of NEP (New Economic Policy). This period witnessed the mushroom growth of trusts and syndicates. State industries also grew up side by side. Economy represented by NEP was a transitional halting-place—a mixed system combining elements of socialism and communism and also of primitive subsistence economy and petty production. Denationalisa-

tion was also not very uncommon. Increasing concessions were given to capitalists.

But inspite of all these Lenin believed that out of the NEP would come socialism. And time was not far off when Lenin and his comrades plunged into the controversy of heavy versus light industries. Discussion centred round the fact whether priority would be given in the construction programme to heavy industry, which by tackling the crucial bottleneck would sooner permit the rate of total construction to be stepped up, or whether priority should be given to light industry, which would yield its fruit more quickly in a larger supply of consumers' goods, with which to raise the urban standard of life. A scrutiny of the successive Five Year Plans of Russia bears testimony to the fact that upto the Fifth Plan heavy industries always got the better of light industries. At the Fourteenth Congress in December of the year 1925 the general report on economic policy was presented by Stalin, and on his report the principle of industrialisation with primary emphasis on heavy industries met with fairly widespread agreement. In 1928-29 the decision was taken to accelerate the pace of industrialisation and to put renewed restrictions on the 'Kulak'.

The original perspective plan for 1926-27 to 1930-31 had provided for a growth of industrial production of 77 per cent (in census industry), and the second draft, covering the period 1927-28 to 1931-32, provided for a 78 per cent increase according to its lower variant and 103 per cent according to its higher variant, and for a rate of investment of about half that of the final plan. After a further series of directions, drafts and redrafts the First Five Year Plan in its final form was adopted in August, 1928. This August version covered the period from the autumn of 1928 to the autumn of 1933. Over the five years the net amount to be invested in the economy was between a quarter and a third of the national income (a proportion two and half times that in pre-1914 Russian and about twice that in pre-1914 Britain.) About a third of the whole investment was to be made in the industries. Of the amount to be invested in industry, three quar-

ters were assigned to heavy industry and only one quarter to the rest. This investment programme was an ambitious one. Annual net investment meanwhile was to increase by three times when expressed in the current prices of each year, and by appreciably more when expressed in real terms. Moreover, the increasing sense of danger of war in the East, following the publication of the Tanaka Memorandum (in which Japanese schemes of expansion on the mainland were cynically outlined) encouraged an appreciable acceleration of the tempo of investment. Targets for heavy industry were stepped up under the slogan of "Piatiletka V Chetire Goda" (The Five Year Plan in Four Years). In face of adverse circumstances, adjustments were made not only to maintain top priority for investment projects in heavy industries but also to raise them. But the consumption industries had to suffer a reduction.

Over the period of $4\frac{1}{4}$ years, the official period of the First Plan, the rate of investment in heavy industry was considerably increased over the original estimates, mainly at the expense of investment in light industry. New blast furnaces brought into operation in iron and steel industry during these years presented a quarter of the total number of them at the beginning of the period, and nearly two thirds of their output capacity. Similarly spectacular results were achieved in the engineering industry, coal industry, chemical industry, Oil industry, electric power generating industry etc. etc. The plan had attained its primary objective, the construction of heavy industry on a firm basis, with brilliant success. Besides, it had achieved its main targets much ahead of its schedule. The capital goods industries registered an increase in gross output (valued at 1926-27 prices) of two and a half times or slightly over original Plan figure of 1932-33. Four times was the increase of output of machinery of all kinds, far exceeding the original target. Nearly doubling its output, oil slightly exceeded the plan target. Although the output of electrical power fell short of Plan target, it registered an increase of more than two and half times. The production of large scale industry as a whole registered an increase of 118 per cent though an increase of 133 per cent was planned for the final

year of the Plan.

In face of the great scarcity and dearth of Russian technicians, the State had put considerable reliance on foreign engineers and technicians—Americans, German and English. So foreign experts were invited and engaged. But side by side a vigorous campaign was launched to increase the number both of higher technical schools of university and secondary school standing and also of factory schools for the training of skilled workers. Besides, serious measures were adopted in the early thirties to improve the terms of employment and living conditions of technicians, especially of those of high grades. All this was done to improve their morale and to win their whole-hearted support.

Even in the Second Five Year Plan both a high rate of investment and the priority assigned to the heavy industry were maintained. The rate of investment slightly eased as a proportion of the total national income, but it increased absolutely. Light industries were assigned more space than that assigned to them in the First Plan. The amount of capital invested in the consumer goods industries (Group B) was increased proportionately by very much more than investment in the capital goods industries (Group A). The value of construction work in Group B industries during the Second Plan was to be $4\frac{1}{2}$ times as large as in the First Plan, and in the case of Group A industries only $2\frac{1}{2}$ times as large.

Without going into the details of the achievements of the Second, Third, Fourth, Fifth and the Sixth Five Year plans of Russia we may very well conclude that through its six successive Five Year Plans State in Russia has been able to industrialise the country to an extent hitherto undreamt of by most of the advanced countries of the world. For the rapid industrialisation of Russia, though in recent years the State has relied on its own rich and varied experiences and resources, in early years of the successive Plans it had to back upon foreign capital, foreign technicians, and foreign co-operation to a considerable extent.

Before closing the chapter we may come to some normative generalisations from the account of the role of State in

industrialisation of different industrially advanced countries of the world which may be of immense value to any State committed to rapid industrialisation. High protective tariffs and provision of good transport facilities were the two common measures which were adopted by State in almost all the countries referred to above. And in fact these measures considerably helped the growth of industries in those countries. We know from the above account how big iron and steel industries were built up behind tariff wall in the U.S.A. Similarly, silk and cotton industries of the U.S.A. also flourished behind high tariffs. In Russia high tariffs tempted foreign capital to develop industries inside the tariff walls. Even in the U.K., where industrial development owed nothing or very little to State-aid, State helped the growth of industry by high protective tariffs. But in present times protective tariffs are not finding favour with economists. In India we have discarded the idea of imposing protective tariffs. Severe import restrictions have been imposed and our Tariff Board is concentrating on price policy. Therefore, one can not recommend protective tariffs, these days. Good transport facilities have always played a significant role in industrialisation of those countries. On the contrary, transport bottlenecks have stood as stumbling blocks in the path of quick development of industries. In view of these experiences it is extremely necessary that the State should see that good transport facilities are provided so that development of industry should not be hampered due to transport bottlenecks.

In some of these countries (Japan, Germany, U.K., U.S.S.R. etc.) the State has helped the growth of industries by introducing money economy and organising the money market also. For instance the State helped the introduction of money economy in Russia (of Pre-Revolution days) and it was one of those three factors which were instrumental in the industrialisation of Russia. Likewise, in Japan, the State had done a lot to organise the money and capital markets which were so useful in quickly industrialising Japan. In India too the money and capital markets are to a great extent unorganised. And if the State succeeds in organising them

they will be of immense help to the successful implementation of the industrial schemes going on in India.

Last but not the least, the German 'Gewerbe Institute' can serve as an ideal for an under-developed country like India. Here also the State can follow suit and establish a similar institute. Such an institute will not only train a large number of workers but also keep the country in close touch with the latest mechanical developments of the world. Hence it is high time that the State should take prompt and positive steps for the speedy establishment of an institute on the pattern of the 'Gewerbe Institute'.

6

ROLE OF STATE IN INDUSTRIALISATION OF INDIA

IN THE PRECEDING chapter we examined the role of State in industrialisation of about more than half a dozen important countries of the world. Now let us come to the role of State in industrialisation of our own country, that is, India.

✓ (Prior to the year 1922 no well-organised and vigorous industrial policy was ever followed in India. And therefore, before the first world war only cotton and jute textiles were the two major industries which had substantially developed. They also could develop mainly due to certain exceptionally natural advantages available in the country.' But acting on the suggestions of the Fiscal Commission of 1921-22, a progressive industrial and fiscal policy was adopted by the Government of India. In the year 1922, the policy of discriminating protection was adopted.) And as a result of it between 1922 and 1939, "the production of cotton piece goods in the country increased $2\frac{1}{2}$ times, the production of steel ingots rose 8 times, that of paper went up $2\frac{1}{2}$ times and in the case of sugar, within a period of 1932 to 1936, the country was able to produce its entire requirements. The growth of cement industry, which by 1935-36 produced about 95 per cent of the total consumption

in the country at the time, belongs to this period. The production of matches, glass, vanaspati, soap and several engineering industries also recorded large increases. (Towards the close of the inter-war period, the manufacture of electrical equipment and goods were also initiated.”¹)

(The second world war was responsible for creating conditions which necessitated the maximum utilisation of existing capacity of Indian industries. The major cause of increases in the recorded industrial production was the war. Though during this period several industries such as ferro-alloys, non-ferrous metals like aluminium and antimony, diesel engines, pumps, bicycles, sewing machines, chemicals like soda, caustic soda, chlorine, superphosphate, etc. were set up on moderate scale, the medium and small scale industries such as light engineering, pharmaceuticals, medicines, drugs, cutlery etc. felt the major impetus of war.) Industries like rayon, automobiles, ball and roller bearing, carding engines, ring frames and locomotives were started in the immediate post-war period. (Prevailing inflationary conditions and scarcities were the main factors which influenced the industrial growth during the war and post-war period. As a result of it long term factors like availability of raw materials, advantageous location, nearness of financial and technical institutions, size of market, etc. could not receive due attention.)

(But due to lack of any organised and well thought-out industrial and fiscal policy on the part of the State in the pre-independence period, the major emphasis in industrial development in India has been on consumer goods industries, while the basic capital goods industries have been grossly ignored and so their development has lagged behind. Even for our present needs the capacity of our capital goods industries is quite inadequate. For a high rate of industrial advance we are required to increase substantially the production of iron and steel, aluminium, ferro-alloys, caustic soda, soda ash, fertilizers, petroleum products, etc. for which demand at present is much in excess of their domestic production or supply.

The dawn of independence saw the beginning of a well

¹ *First Five Year Plan*, pages 420-21.

thought-out industrial policy in India. India achieved its freedom on the 15th August, 1947 and as early as on the 6th April 1948 the Government of India put forth its Industrial Policy Resolution. The essentials of State policy in the sphere of industrial development have been stated in the Industrial Policy Resolution of April, 1948. Indian industries according to the resolution, have been divided into three broad categories. The first category of schedule includes certain industries like the manufacture of arms and ammunitions, the production and control of atomic energy and the ownership and management of railway transport. These have been exclusively reserved for the Central Government. The second schedule includes certain other industries such as coal, iron and steel, aircraft manufacture, ship-building, manufacture of telephone, telegraph wireless apparatus and mineral oils. State including the Central and State Governments and other public authorities will be responsible for further development of these industries. State will have progressive control over their ownership and management. But it will be open to State to enlist the co-operation of the private sector in the broader public interest. The third category includes the rest of the industrial field. This will be open to private enterprise, individual as well as co-operative, but the State will intervene whenever the progress of any industry under private enterprise is found to be unsatisfactory. Within the frame work of this policy, State has tried to forge a programme of industrial development which meets the present needs of the country.

✓ The Industrial (Development and Regulation) Act was passed in the year 1951 to enable the State to implement its policy for the development and regulation of industries along the lines stated above. This act is to apply to 37 industries which are as follows :—(a) consumer goods industries like cotton and woollen textiles, vanaspati and vegetable oils, sugar and salt, pharmaceuticals and drug etc. ; (b) capital goods and producer goods industries like iron and steel, locomotive and rolling stock, non-ferrous metals and alloys, heavy machinery for industry including ball and roller bearings, gear wheels, etc. and machine tools ; (c) industries producing fuel such as coal,

power and industrial alcohol, motor and aviation fuel, and other oils ; (d) industries producing machinery and equipment for generation, transmission and distribution of electric energy electric motors, batteries and electrical goods ; (e) heavy chemicals including fertilizers (f) automobiles including tractors, aircraft, ship-building and telephones, telegraph and wireless communication apparatus and (g) various others, such as arms and ammunition and scientific instruments, small and hand tools, sewing and knitting machines, bicycles, hurricane lanterns, glass and ceramics.¹

The important provisions of the Act are :

(i) All the existing industrial undertakings in the scheduled industries have to be registered with the Government within a prescribed period ;

(ii) No new industrial unit can be established or substantial extensions to existing plants made without a licence from the Central Government ;

(iii) The Government can order an investigation in respect of any scheduled industry or undertaking if, in its opinion, there has been or is likely to be an unjustifiable fall in the volume of production in the industry or undertaking or if there is a marked deterioration in quality or an increase in price for which there is no justification ; a similar investigation can also be ordered in respect of any industrial undertaking being managed in a manner likely to cause serious injury or damage to consumers ;

(iv) In the event of an industry or undertaking not carrying out the directions issued after such an investigation, the Government can take over its management.²

The Act provides for the setting up of a Central Advisory Council which has already been set up by the Government of India. The Central Advisory Council consists of the representatives of owners, employees, consumers and certain other classes including primary producers. The Central Government must have to consult this council before exercising the powers conferred on it by the Act. This is a great check on the arbi-

¹ *The Industries (Development and Regulation) Act of 1951* Schedule I

² *The Industries (Development and Regulation) Act 1951.*

trary and irrational steps of the State. By setting up this council the State has taken a commendable step in the interest of the implementation of the provisions of the Act which are so helpful to the healthy growth of industries in India.

It was in the interest of a solid foundation for the rapid industrial growth of India that during the period of the First Five Year Plan, on the advice of the Planning Commission the State accepted the following general order of priorities in the industrial field :

(i) fuller utilisation of existing capacity in producer goods industries like jute and plywood and consumer goods industries like cotton textiles, sugar, soap, vanaspati, paints and varnishes,

(ii) expansion of capacity in capital and producer goods industries like iron and steel, aluminium, cement, fertilisers, heavy chemicals, machine tools, etc.

(iii) completion of industrial units on which a part of capital expenditure has already been incurred, and

(iv) establishment of new plants which would lend strength to the industrial structure by rectifying as far as resources permit the existing lacunae and drawbacks, e.g. manufacture of sulphur from gypsum, chemical pulp for rayon, etc.

The order of priorities stated above represented only in a general way the approach which was adopted to the problem of directing the flow of investment along various lines during the period of the First Plan. In the nature of the case no statement of priorities can be final or all inclusive.

Over the five year period, the total allotment of expenditure on the industrial projects included in Plans for the Central Government and for the States amounted to Rs. 94 crores (Rs. 83 crores in respect of the projects directly under the Central Government and Rs. 11 crores in respect of projects under the State Government). This was exclusive of the finance that had been allotted for industries out of the lump sum provision of Rs. 50 crores for basic industries and transport. (This figure of Rs. 94 crores differs from the estimates of expenditure on industry in the public sector given in chapter

IV of the First Five Year Plan, since it had been prepared on a different basis and certain items, e.g. expenditure on all small scale and cottage industries and finance for the establishment of Industrial Finance Corporation and trading estates, had not been included).¹

To attract foreign capital the State has given the following assurances to foreign capital:

(a) there will be no discrimination between foreign and Indian undertakings in the application of general industrial policy,

(b) reasonable facilities will be given for the remittance of profits and repatriation of capital, consistently with the foreign exchange position of the country, and

(c) in the event of nationalisation fair and equitable compensation would be paid.²

Summing up the progress of industrialisation in the public sector at the end of the First Plan it may be said that progress in the case of Sindri Fertiliser Factory, Chittaranjan Locomotive Factory, Indian Telephone industries, the Integral Coach factory, the Cable factory and the Penicillin Factory was timely and satisfactory but progress in the case of Machine Tool Factory, U.P. Cement Factory, Nepa Factory and the Bihar Super-phosphate factory had been delayed or was somewhat behind schedule. Similarly proposed expansion of the productive capacity of some other industrial undertakings in the public sector had not been adequately made by the end of the First Plan. Preparatory work was however, completed by the end of the First Plan period for three steel factories of 1 million ton ingot capacity each and the foundations had been laid for a rapid advance in the iron and steel industry in the coming years.

As against Rs. 94 crores proposed to be spent on industrial projects in the public sector, the outlay as anticipated at the end of the First Plan was only Rs. 57 crores.

In the Second Five Year Plan the State accorded a priority to industrialisation, and specially to the development of basic

¹ *First Five Year Plan*—Page 428.

² *First Five Year Plan*—Pages 437-38.

and heavy industries. A large expansion of public enterprise in the sphere of industrial and mineral development was envisaged. It was intended to strengthen further the programmes of development in respect of heavy industries, oil exploration and coal and to begin with the development of atomic energy. The dynamism of the Second Plan lay to a considerable extent in these new programmes. The 1948 Resolution was revised and the new Industrial Policy Resolution was placed before Parliament by the Prime Minister on the 30th April 1956. As the Resolution puts it, "The adoption of the socialist pattern of society as the national objective, as well as the need for planned and rapid development require that all industries of basic and strategic importance, or in the nature of public utility services, should be in the public sector. Other industries which are essential and require investment on a scale which only the State, in present circumstances, could provide, have also to be in the public sector. The State has, therefore to assume direct responsibility for the future development of industries over a wider area." The Resolution divides industries into three broad categories, having regard to the part which the State would play in each of them. The first category shown in Schedule A consists of industries the future development of which will be the exclusive responsibility of the State. The second category shown in Schedule B includes industries which will be progressively State-owned in which, therefore, the State will generally establish new undertakings, but in which private enterprise will also to some extent supplement the efforts of the State. All the remaining industries fall in the third category. These will be left to the initiative and enterprise of the private sector. But these categories are in no way three watertight compartments.

The Resolution (as its predecessor did) emphasises clearly the responsibility of the State in the matter of promoting, assisting and regulating the development of industry in the national interest. It envisages for the State an increasingly active role in the field of industrialisation.

The new Resolution further reiterates the State's approach to the problem of cottage and small scale industries as indicat-

ed in the previous Resolution (of 1948). The State is quite conscious of the need to promote, modernise and reorganise these industries which are so useful from the points of view of generation of employment opportunities, ensurance of more equitable distribution of national income, and effective mobilisation of scattered skill and capital.

As regards foreign capital State's previous policy as stated by the Prime Minister in Parliament on the 6th April, 1949 continued to hold good even during the period of the Second Plan.

So in a way the Government of India restated their Industrial Policy. The Government trust that this restatement of their Industrial Policy will receive the support of all sections of the people and promote the rapid industrialisation of the country.

As the Second Plan puts it, "In the First Plan a total provision of Rs. 94 crores was made for the establishment of large scale industries in the public sector as against an estimated programme of new investment in the private sector of Rs. 233 crores. In the Second Plan, the provision of Rs. 690 crores for large scale industries and mining (including scientific research) in the public sector compares favourably with the estimated new investment of Rs. 575 crores for industries and mining in the private sector. While the private sector is expected to play an important part in the process of industrialisation, there is a pronounced shift in emphasis in favour of the projects in the public sector."¹ Practically the entire provision of Rs. 690 crores for large scale industry and mining was reserved for the development of basic industries such as iron and steel, coal, fertilisers, heavy engineering and heavy electrical equipment. The establishment of three steel plants of one million ton ingot capacity each in the public sector at Rourkela, Bhilai and Durgapur is a glory to mention. Expansion of the Mysore Iron and Steel Works also merits attention. Besides, Chittaranjan Locomotive Factory was expanded so as to more than double its annual production. These are to

¹ *Second Five Year Plan*—Pages 66-67.

quote only some few outstanding examples out of so many industrial projects undertaken in the public sector.

Besides, with the Second Plan the State has made a beginning in the direction of regional development of industries. Major projects included in the Second Plan have been opened in relatively less advanced areas in Orissa and Madhya Pradesh. Measures of long term importance for a wider diffusion of the expansion of industries have also been taken.

Noticeable progress made by the country in the field of basic capital and producer goods industries may be summed up as follows: "With the completion of three new steel plants in the public sector, the total finished steel capacity created will increase to 4.5 million tons as compared to one million tons at the beginning of the First Plan, and 1.3 million tons at the beginning of the Second Plan. There has been considerable increase in the production of essential industrial materials like cement, coal, aluminium, etc. The country is now producing steadily increasing quantities of machine tools and machinery for use in agriculture and for cotton textile, jute, cement, tea, sugar and vegetable oil industries. By the end of the Second Plan, much of the equipment required by the railways will be available from indigenous production. The average value of all kinds of industrial machinery produced in the country has risen from Rs. 11 crores in 1951 to about Rs. 79 crores in 1958. The corresponding figures for electrical equipments are Rs. 20 crores and Rs. 71 crores respectively. A beginning has been made in the production of heavy electrical equipment."¹

A glimpse of the progress (attributable mainly to the efforts of the State) which was likely to be achieved in 1961-62 in the production of important producer goods may be obtained from the following table :

¹ *Draft Outline of the Third Five Year Plan*—Page 19.

PRODUCER GOODS¹

<i>Commodity</i>	<i>Unit</i>	<i>1950-51</i>	<i>1960-61 (likely production)</i>
Finished steel	Million tons	1.0	2.6
Aluminium	'000 tons	3.7	17.0
Diesel Engines	thousands	5.5	33.0
Electric Cables (ACSR) conductors.	tons	1674	18000.0
Nitrogenous Fertilisers (N)	'000 tons	9.0	210.0
Sulphuric Acid	'000 tons	99.0	400.0
Cement	Million tons	2.7	8.8
Coal	Million tons	32	53
Iron Ore	Million tons	3	12

Small Industries Service Institutes have been set up in all States. Besides, 42 extension centres have been set up in association with these industries. Attempts have been made to set up as many as 60 industrial estates comprising of 700 small factories by the end of the Second Plan. The State has subsidised a large number of small scale and cottage industries which have registered sizeable increase in their production.

Even in Third Five Year Plan the State will stick to the Industrial Policy Resolution of April 1956 and the expansion of industry will continue to be governed by the Industrial Policy Resolution of April, 1956. Public and Private sectors will continue to be supplementary and complementary to one another as they have been in the Second Plan. The industrial plan for the period 1961-66 will be governed by the over-riding need to lay the foundations for rapid industrialisation over the next 15 years. In the Third Plan the State deems it necessary to press forward with the establishment of basic capital and producer goods industries—with particular emphasis on machine building programme. There is a growing realisation on the part of the State to make our industry increasingly independent of outside aid.

¹ *Draft Outline of the Thrd Five Year Plan—Page 19.*

It will not be out of place here to refer to some significant industrial projects in the public sector to be taken up during the Third Plan period.

(A) Projects under execution and carried over from the Second Plan :—

- (i) Completion of the steel plants (Bhilai, Rourkela & Durgapur).
- (ii) Rourkela Fertiliser Factory.
- (iii) Heavy Machine Plant at Hatia.
- (iv) Foundry Forge Shop at Hatia.
- (v) Mining Machinery Plant, Durgapur.
- (vi) Heavy Electrical Project, Bhopal.
- (vii) Drug Projects (at various places).
- (viii) Organic Intermediates Plant near Panvel.
- (ix) Expansion of Hindustan Antibiotics.
- (x) Trombay Fertiliser Projects.
- (xi) Naharkatia Fertiliser Project.
- (xii) Andhra Fertiliser Project near Kothagudium.

(B) New Projects for which external credits are already assured :—

- (i) Expansion of Heavy Machinery Plant.
- (ii) Expansion of Mining Machinery Plant.
- (iii) Second and Third Heavy Electrical Projects.
- (iv) Expansion of Foundry Forge at Hatia.
- (v) Expansion of Bhilai Steel Works.
- (vi) Heavy Machine Tools Project.
- (vii) Precision Instruments Project.
- (viii) Ophthalmic Glass Project.
- (ix) Raw Film Project, Nilgiris.
- (x) Project for the manufacture of watches.

(C) New Projects included in the Plan for which foreign credits have not yet been arranged :—

(i) *Steel* :

- (a) Expansion of Rourkela Steel Plant.
- (b) Expansion of Durgapur Steel Plant.
- (c) Alloy and Tool Steel Plant.
- (d) Bokaro Steel Plant.

- (e) Ancillary facilities (Coal, other mineral raw materials, power and transport) linked with (d) above.

(ii) *Other Industries :*

- (a) Heavy Structural Projects.
- (b) Heavy Plant and Vessel Works.
- (c) Expansion of Hindustan Machine Tools, Jalahalli.
- (d) Expansion of Heavy Electrical Project, Bhopal—Second and Third Phases.
- (e) Additional capacity for fertilisers.
- (f) Expansion of Visakhapattanam shipyard and construction of Dry Dock.
- (g) Security Paper Mill at Hoshangabad.
- (h) Expansion of Hindustan Cables, Rupsainpur
- (i) Second shipyard at Cochin.

(D) Projects on which preparatory work should continue with a view to decision in due course :—

- (i) Heavy Compressors and Pumps Project.
- (ii) Basic Refractories Project.
- (iii) Ball and Roller Bearings Project.
- (iv) Additional capacity for Machine Tools.
- (v) Second Heavy Structurals Project.
- (vi) Second Plate and Vessel Works.
- (vii) Marine Diesel Engine Project.

(E) Projects of a contingent nature :—

- (i) New refinery for fresh oil findings.
- (ii) Crude Oil Pipelines.
- (iii) Government participation in Indo-Stanvac project for oil Exploration and in oil India's programmes for Expansion of Oil Production.
- (iv) Piping of Naharkatiya natural gas.¹

During the course of the Third Plan the overall tentative outlay envisaged for industrial and mineral programme was

¹ *Draft Outline of the Third Five Year Plan—Pages 229 to 232.*

about Rs. 2570 crores net—Rs. 1520 crores in the public sector and Rs. 1100 crores in the private sector. The public sector provision is inclusive of Rs. 50 crores transferable to private sector through institutional agencies.¹

By now we have extensively referred to the industrial policy, industrial projects, industrial outlays, industrial priorities of the public sector during three successive Five Year Plans of India. We have also referred to some extent to the actual industrial achievement in public sector during the First and the Second Five Year Plans. But all these do not finish our task. Still there are many significant remarks to be made as regards the actual role of State in industrialisation of India. Those remarks will be made hereafter in the following paragraphs.

In some preceding—paragraphs we have already referred to the attractive assurances given by the State to foreign capital. It will be an unnecessary repetition if we again refer in detail to the assurances given by our Prime Minister (in Parliament on the 6th April, 1949) to foreign capital. Suffice to say that all legitimately possible assurances have already been given by the State to foreign capitalists. State's attitude towards foreign capital is highly appreciable because we can not ignore the significant role which foreign capital can play in industrialisation of an underdeveloped country like India.

The State is also trying its best to raise the technical efficiency of Indian people. Our technical graduates are now usually being sent by the State to foreign countries to learn higher techniques. After their return they will train others at home. Besides, as far as possible the State is increasing the number of technical institutions during the period of each Five Year Plan.

Besides, different financial institutions have been started by the State to give financial help to industries in the private sector. A detailed reference to the working of these various financial institutions has been made in a preceding chapter (which deals with the financing of industries in the public and private sectors). So these financial institutions will help the

¹ *Third Five Year Plan*—Page 461.

industries in the private sector in solving their great problem of capital. Provision of cheap and timely capital to private sector industries is the main object of most of these financial institutions set up by the State.

But inspite of all these, India will not be able to become a predominantly industrial country even by the end of the Third Plan. Only ceaseless and incessant efforts during the course of some more successive Five Year Plans will be able to make India a mainly industrial country. The State has rightly taken up a very active part in the development of industries in the country. By its Industrial Policy Resolution the State has taken a right decision by implicitly discarding the theories of Prof. J. K. Galbraith and Ludwig Erhard that the State should confine itself only to the development of social and economic overheads. Should the State accept their views and confine itself only to the development of social and economic overheads, industrialisation of the country will be much more delayed. In a country like India where there is little or no industrial tradition worth the name, the theory of Prof. J.K. Galbraith and Ludwig Erhard can not find favour. It smacks more of a developed economy like that of the U.S.A. or West Germany than of an under-developed economy like that of India. Hence, the State should actively participate in the development and establishment of industries in developing countries and should not only confine itself to the development of social and economic overheads only. Active participation by the State in the field of industry is not only commensurate with the idea of 'Socialistic Pattern of Society' but also helpful in checking the growth of concentration of economic power in the hands of a few persons. Hence, we approve of the State's policy of its active participation in the field of industry.

7

CONCLUSION

INDUSTRIALISATION has become the magic word of the mid-twentieth century. It has become one of the great world crusades of modern times. There appears to be a general belief that real progress must ultimately depend on industrialisation. It is generally held that it is a panacea for all the cancerous evils and problems of our times. We expect to find in it a solution to our problems of grim poverty, utter insecurity, low standard of living, over-population, backwardness, malnutrition, illiteracy, unemployment. etc. In fact there are enough sound motives for rapid industrialisation. By and large it has been utilised in past to increase the national income, to improve the supply of goods and services, to expand the employment opportunities, to widen the market for local raw materials, to increase the range of human choice, to lead to greater happiness, to have more of leisure, to increase the standard of living, to provide opportunities to men (and particularly to women) to cease to be beasts of burden and participate in the manifold activities of human race, to widen the scope for mankind to indulge in the luxury of humanitarianism, to diminish the strife in a community where political aspirations are currently in excess of resources, and to increase the defence

potentialities. Therefore, it has become the magic word and a great crusade of modern times. But these sound motives of industrialisation hardly make out a case for the State's role in the field of industrialisation of under-developed or developing countries. That State has to play a significant part in the industrialisation of developing countries is to be justified on altogether different grounds.

In modern times the State has ceased to be a police State. It has assumed the role of a welfare State. And therefore it cannot afford to be a silent spectator of all the cancerous evils and problems of its developing people. Since industrialisation and particularly rapid industrialisation has proved to be a panacea for most of these evils and problems a Welfare State cannot resist the temptation of rapid industrialisation. Secondly, as compared to scattered individual decisions, the decisions of the State will be definitely superior so far as the interest of the whole economy is concerned. The State is better placed than an individual to consider the needs and requirements of the economy as a whole. It is easy to see that the argument of J. S. Mill that "Each person's happiness is a good to that person, and the general happiness, therefore, is a good to the aggregate of all persons" involves two fallacies, first a fallacy of composition and then one of Division. To borrow Carlyle's famous satirical comparison, to agree with Mill is to accept that just because each pig desires for himself the greatest amount of a limited quantity of pigs' wash, each necessarily desires that greatest quantity for every other or for all. Therefore, on the ground of better and more efficient allocation of resources a good case for State's active participation in industrial activities of a developing nation can be made out.

Thirdly, if we opt for a thoroughly planned, systematic and balanced industrial growth, we will have to concede, for quite obvious reasons, a significantly important role to the State in industrialisation of developing nations. This is a quite natural corollary of the (above-mentioned) second argument. Fourthly, even on the basis of their ideology certain governments undertake industrial projects. But such countries are only in minority. Fifthly, more often than not it is the basis of

necessity rather than the basis of ideology that drives States to actively participate in industrial ventures of their developing countries. Overwhelming majority of countries are guided by the necessity due to various reasons.

Sixthly, an important reason for States' participation in the field of industrialisation has been the scarcity and/or shyness of private capital. This is true of most of the developing countries. In the seventh place, even the inexperience and hesitation of private enterprise have left no alternative for the State than to enter upon the industrial enterprises. In the eighth place, often the lack of proper technical know-how has dissuaded the private enterprise from taking up certain industrial projects and, therefore, the State had to step into those fields.

Ninethly, considerations of policy have often driven States to earmark certain fields of industrial activities exclusively for the public sector. In such cases State is left with no alternative but to play a significant positive part in the field of industrialisation. For instance, in India, as a matter of policy there is only public ownership and control over certain industries like the manufacture of arms and ammunitions, atomic energy, etc. Besides, State will progressively take over certain other categories of industries. Tenthly, lack of industrial tradition in developing countries has also been an important factor leading to State's participation in the field of industry. In Burma, Ceylon, Thailand and a number of other countries lack of industrial tradition has driven the State to take active interest even in the establishment of comparatively small manufacturing concerns of the light industry type.

In the eleventh place, at times, the State finds private enterprise unable or unwilling to step into certain industrial fields and, therefore, often in the public interest, it has to take the initiative and enter into those fields. In the twelfth place, in order to close the door to economic colonisation by foreign powers and also to save the national pride State is compelled to take active part in the industrial ventures of the country. At times, due to shyness, inability or unwillingness of the indigenous private sector there appears to be the prospect of

much of the new industrial sector going into the hands of foreigners. It opens the door to economic colonisation by foreigners or at least is regarded as a challenge to national pride. Such circumstances pose a threat to political, economic and even cultural independence. Therefore, State has to come into picture and play a significant role in industrialisation.

In the thirteenth place, even on grounds of defence and strategic needs rather than on ordinary economic grounds State is required to make positive contribution to the industrial activities of the country. When a national necessity arises and the private sector falls short of the task or, in other words, appears unwilling to act, at least in a manner or on a scale considered necessary under the circumstances, it becomes the duty of the State to rise to the occasion. This is true not only of developing countries but also of developed ones like the U.S.A. and Canada. The U.S. government had to set up for the manufacture of munitions the Muscle Shoals Chemical Works. In Canada, State established the Polymer Corporation to make synthetic rubber to meet military needs.

In the fourteenth place, State's anxiety to protect the public interest from private monopolies (existing or potential ones) may also drive it to action so far as industrialisation is concerned. Finally, at times State undertakes industrial project in order to earn profit or surplus which can be utilised ultimately for financing the non-commercial projects of national interest or importance.

So there are sound motives not only for industrialisation but also for State's active participation in the industrialisation of a developing country. But State's participation cannot be confined only to the establishment of industrial projects in the public sector. Particularly in mixed economic systems (and to my mind all economic systems are to some extent mixed ones). It will be no less a duty of the State to encourage and guide the private sector. State can play this role in ways more than one. Henceforward our chief task in this chapter will be to examine briefly this dual role of State in the context of industrialisation—its role in the public sector and its role in the private sector.

As a matter of fact State should try hard to make the best of both the worlds. There are respective merits and demerits of both private as well as public projects. As we have economic dangers in private projects so we have economic disadvantages of government projects. Both of them have their merits as well. So State has a dual function to discharge. On the one hand it has to make government projects more and more successful and fruitful and on the other it has to encourage private investment in industry. A general atmosphere for promotion of industrial development has to be created by the State. There are a number of measures which State can take for the purpose. But before analysing these measures it is better to discuss very briefly why and how State should make the best of both the worlds.

It is comparatively easy to answer why State should make the best of both the worlds. The question cannot arise if, strictly on the basis of one particular social and political philosophy or the other, we decide that government alone should be the sponsor, builder, owner, and operator of new industrial projects or that these functions should be left entirely to private business as a matter of policy. It assumes significance as soon as we opt in favour of mixed economic system. And to my mind all economic systems are mixed to some extent or the other. As both public and private projects co-exist in mixed economic systems State should try to make the best of both worlds. Since both the sectors—public as well as private—have their respective economic advantages and disadvantages State should strive for a fine reconciliation between the two. Before we come to suggest how this reconciliation can be made let us substantiate our charge that both the sectors have their own economic merits and demerits.

The advantages that government projects have over private industrial ventures are not one but many. Since governments can generally raise larger amounts of capital than private entrepreneurs they can set up a large industrial project with financing sufficient to ensure the best of modern equipment of the capacity calculated to be economically

most advantageous. As governmental guarantee lessens the risk to the lender governments can raise capital, both internally and externally, at a lower rate of interest than private entrepreneurs. Otherwise unobtainable loans or credits are also often made available to the country by governmental efforts and guarantee. Public sector industrial projects usually have the advantage of extremely liberal import licenses, easy provision of necessary services such as road or railroad connection and electric power, cheap or even free foreign technical assistance, availability of market for the project through governmental purchases, provision of equity or low interest loans, and similar other facilities. Profits from government industrial projects can be used directly by the State for setting up projects considered to be of the highest priority for the development of the economy. These profits may also be directly used by the State to create a pattern of income distribution which can provide increased incentives in the economy. But this is only one side of the picture.

Government industrial projects have their economic disadvantages too. They often suffer from some almost apparently inherent contradictions and defects. Seriously conflicting claims and objectives, and an utter lack of policy-clarification are very much characteristic of government industrial projects. Life too is very much complicated and confusing for government industrial projects. They are launched with the announced purpose of going in several directions at once. Attempt is made to turn them to be all things to all voters. Besides, without making any thorough effort to determine the soundness of the industrial ventures, governments often decide on political rather than on technical and economic grounds. Once political considerations are allowed to blur the technical and economic considerations, they tend to influence decisions with regard to pricing, purchasing, marketing, wages, etc. And then, no wonder, they are diverted from their real task of producing wealth for the country and they become instead political and welfare institutions. There is not only overstaffing but

also a large amount of nepotism and bungling in the appointment of the staff. Even managerial responsibilities are given to persons without satisfactory qualifications. Even if professional managers are employed they are not allowed to have their say in matters of management. Moreover, they suffer much from red-tapism. Even if they are run by public corporation, they are manned by civil servants to such a degree that, in practice, they are run on the basis of 'Old Boys' relationship. These old boys (civil servants) are often trained in a system which discourages the essential characteristics basic for success in the management of industrial or commercial concerns. Since there is no socialist substitute for bankruptcy, government industrial projects, even if they fail, are inevitably carried long after they would have been abandoned had they been a private venture. Losses rather than profits are the order of the day in government industrial projects. But a large number of manipulations are made—all to create the impression that projects are really successful.

Enlisting the advantages of private industrial projects we can chiefly mention the following. These projects are not only established on purely economic grounds but are also allowed to take their decisions as well on purely economic grounds. They have maximisation of profits as their chief objective and they are out to achieve it by hook or by crook. All other objectives, if any, are subordinated to the dictates of this chief objective, which has to be achieved, matters little whether it is achieved through monopolistic practices or through means which benefit the economy at large. In the long run, and particularly after serious governmental interference, restrictions and regulation, they try to achieve the chief objective through means which benefit the economy. In the long run, private enterprise tends to gain most by seeking the utmost in efficiency which is just a synonym for low-cost production, or maximum output for a given amount of input. Not only for the private enterprise but also for the economy at large this is a desirable objective.

Private industrial projects have not only a single clear-cut

basic purpose (in place of public sector's conflict of many divergent objectives) but also a system of rewards and punishments. There is a firm belief that people will work harder, accept more risks, produce more, make others to produce more, and take greater responsibility if they can thereby directly add to their earnings. Besides, another obvious advantage of having private industrial projects is that they make use of private capital which would otherwise lie idle or be spent on conspicuous consumption, or be used for bidding up real estate prices or be used for capital flight to foreign lands.

As compared to public industrial projects, private ones place great stress not only upon cultivating customers' goodwill (by making provision for quality, style and research into consumers' preferences) but also on reinvestment and expansion. Lack of aggressive expansion policies and competing demands for funds turn government industrial projects unable and unwilling to plough back their profits. Above all, a tremendous amount of human energy, enthusiasm and ambition can be harnessed for economic purposes by the help of these private industrial projects.

But there are many dangers too in private projects. They tend to be monopolistic and claim for themselves more than socially accepted rewards by charging prices which have no reasonable relationship to costs. They try to eliminate competition by forming open or secret cartels. These projects are also responsible for gross maldistribution of national income, over or under production, conflict with national priorities, reactionary influence on public policies (through various malpractices), excessive drain on foreign exchange resources (for remittance of dividends, fees and repatriation of capital, etc.) and short-sighted selfishness.

Since we have had a picture of the respective merits and demerits of public and private projects, we cannot hope to safely bank upon only one of them. As we cannot tie a nation's fate with only one of them we have to fall back on the use of both of them and, therefore, wisdom lies in making the best of both the worlds.

Let us, now, examine how State can make the best of both the worlds. If one is asked to answer this question in a vague and general way one can make the sweeping remark that State should strike a fine balance between the two sectors as well as between the diverse and conflicting economic and non-economic considerations pulling in opposite directions. But this sweeping generalisation cannot serve our purpose. We must have to be very precise and definite. To start with, State should set up some agency to make industrial and economic investigations, analyses and researches to study the economic and industrial problems and possibilities of the country concerned. This agency should explore, appraise and apprise people of developmental potentialities. In newly developing countries, potential industrialists are often ignorant of industrial prospects. They badly require a thorough information about technically feasible and economically sound potential industrial projects. State should make the private sector aware of the important information regarding statistics with regard to production, prices, trade, governmental help, national income, pattern of income distribution, etc. It should also be apprised not only with the basic economic and industrial structure of the country but also with the periodical changes in it. Agency's most significant contribution should be that it should bring to light the magnitude of the interdependence of the relevant economic phenomena. All the relevant information furnished by the agency will serve as the basis for market research.

Equally important is the government's responsibility to make provision for social, economic and technical overhead capital like railways, highways, docks, electric power, water supply, communications, education, health, police, fire protection, technical colleges and institutes, technical information and technical aid. They are indispensable for industrialisation and the private enterprise cannot be legitimately hoped to make any significant contribution towards the creation of these social, economic and technical overheads. Private enterprise may not possess adequate financial and other facilities for such investments. It may not also find these invest-

ments profitable and therefore keep itself away from making any such investment. Even in countries, which are supposed to be the strongholds of capitalism, State is slowly and gradually entering into these fields. Even in the past these essential services were by and large rendered by the State. But no such investment should be made by a government just because it involves its prestige or satisfies its vanity. The national welfare test is probably the best test.

The arguments in favour of some amount of international co-ordination in this type of research are even more strongly applicable to co-ordination on a national scale. Information can well be supplemented by demonstration. In the field of industry erection of demonstration plants, combined show at industrial fairs, and similar other exhibitions are as useful as the demonstration of new seeds, new fertilizers, new tools, and new methods to agriculturists. So the idea should be applied by State in the field of manufacturing industry as well.

Next we come to make a reference to other methods by which State can stimulate private investment. We have already examined in detail in one of the previous chapters how State can stimulate private investment by the help of protection, subventions, tax provisions, etc. Comparative merits of these measures have already been discussed and, therefore, in order to avoid superfluous repetition let us pass on to other measures which State should adopt.

State can arrange credit facilities for the private sector on reasonable terms through government sponsored specialised institutions. Meagre financial resources of individual private entrepreneurs make it extremely necessary for the State to arrange for smooth credit facilities on reasonable terms to them, particularly to the petty entrepreneurs. But here a word of caution is necessary that if it (State) does too much or too little or the wrong things, it may even retard the industrial growth instead of furthering it.

The line of demarcation between the public and the private sectors must be crystal clear. The air must be clear about it well in advance. Objective evaluation of the mani-

fold advantages and disadvantages of public and private industrial projects should guide this line of demarcation. Emotionalised faith in one course of action or the other should not form the basis of this line of demarcation. Objective evaluation of both the forms is feasible because both forms have already been given fair trial under all conceivable circumstances. Broadly speaking there may be three categories—one exclusively for the public sector, the other exclusively for the private sector, and the rest should be earmarked as a common fishing ground for both the sectors. This way unnecessary competition and confusion can be avoided.

State should not deprive the country of the advantages of fullest possible foreign collaboration. To speed up industrial development a developing country should try to make the best use of foreign capital, experience and technical know-how. Industrial know-how can be well secured from abroad by technical information, consulting arrangements, employing foreign consultants, sending local people abroad and also by joint ventures. Foreign capital can be abundantly attracted by the help of a guarantee, preferably a constitutional one, regarding its safe harbour, attractive return, right to repatriation of profit and right to fair and adequate compensation in the event of nationalisation. Stable governments and absence of ideological hostility and mistrust towards private enterprise will encourage both local as well as foreign industrialists to make investment in viable industrial projects.

A bit earlier we suggested that State should explore the industrial potentialities of the economy. But how can it be done? How to find industrial opportunities is a really ticklish problem. But it may be solved in the following way. Agency, entrusted with the task of finding out industrial opportunities, can do well, in the first instance, to study and investigate the local raw materials and locally available skill. This study can supply some ideas about industries which can be set up on the basis of local skill and raw materials. Then a study of the things imported by the country can give us an idea of another list of industries which can be locally set up to manufacture such goods as will supplant imports. A searching study and

examination of the already existing industries and inter-industry relationship will lead us to identify logical new projects. An analysis has to be made of how inputs and outputs of different industries fit together. A thorough study and re-examination of the locally available raw materials and products in the light of the latest scientific and technological findings and research will throw some light on industrial potentialities. Often major development plans of a country lead to creation of new markets in certain areas for certain goods which were not in demand there previously. These new markets can surely give us an idea of industries which can be established to meet the newly growing demand for these goods and services. A study of abandoned old projects can often give us the impression that under the changed circumstances the abandoned projects can be restarted and comfortably completed. In this way even old areas can provide us with new opportunities. Similarly we can study the industrial set up of other countries with somewhat similar circumstances. Last but not the least, we can study the list of industries and their classifications prepared by the United Nations Organisation and the industrially advanced countries of the world like the U.S.A., the U.K., the U.S.S.R., Germany, Japan etc. Methods suggested above are supplementary and complementary to one another and, therefore, they can be given a simultaneous trial by countries in search of new industrial potentialities.

But it is not enough that by the help of above methods State is able to find out industrial opportunities. Neither will it suffice to create conducive climate for private industrial growth by—

- (i) giving long-term guarantee against nationalisation (preferably a constitutional guarantee);
- (ii) allowing complete or partial exemption from income, business and property taxes for a certain period (say for five to ten years);
- (iii) permitting to carry forward losses during the first few years to reduce profits in later years when they would be taxable;
- (iv) giving option to accelerate their (private entre-

- preneurs') depreciation write-off;
- (v) allowing new projects to postpone depreciation write-offs until their tax exemption period is over (thus allowing larger profits during the exempt years);
 - (vi) lowering rates of taxes on corporate income, profits, profits reinvested, exports and imported capital goods;
 - (vii) providing tariff protection against foreign competition;
 - (viii) granting suitable and reasonable facilities to foreign investors;
 - (ix) enacting comprehensive 'Investment Acts' of both types—screening type and automatic type; and
 - (x) advancing financial assistance in the shape of direct loans and loans through development banks. State ought to make elaborate publicity to build a favourable picture, depicting that the country is a good place to live in and do business and the government is not only stable, honest, efficient and progressive but also ready to enthusiastically welcome local as well as foreign capitalists. It should also give the impression that labour is cooperative and anxious to be productive. Attractive brochures, effectively outlining the facilities offered by the country to new industrial investors, can prove to be very useful. Similarly, it is advisable to make suitable advertisements in carefully selected standard publications which are usually consulted by businessmen in major centres from where most foreign investments emanate. Occasional articles in standard business magazines and newspapers and public speeches by political leaders should also stress that the country is ready to extend a very hearty welcome to foreign investors.

In addition to all these, State should see that the tender plant of the favourable image of the country in the eyes of foreign investors does not die and wither away with the blast of one harsh wind of a careless and unwarranted

action, incident, speech, disorder or strife. This should always be borne in mind that this tender plant grows very slowly but withers away quickly. Therefore, government should not only avoid getting in the way of private enterprise but also try to simplify regulations, customs procedures, payment routines, and official formalities and procedures. Annual review of legislation and regulations affecting private industry should take place and only such of them should be retained which are found absolutely essential.

What can be done by State for capital formation in public and private sectors has already been analysed in one of the previous chapters. Similarly, it has also been discussed earlier that it should smoothen the path of industrial progress by removing as far as possible the hindrances to rapid industrialisation. That absence of right institutional framework and proper human behaviour, lack of will to economise, low level of capital formation and dearth of knowledge are the important obstacles to industrial growth and that State can do a lot to remove these obstacles has also been already discussed and analysed in detail. Likewise, it is needless to repeat here in detail how State can help the formation of skill in a developing country. As industrial and agricultural developments are by and large interdependent one should not be developed at the cost of the other. In the earliest stages of development suitable assistance to agriculture may serve as a great safeguard for the establishment and growth of a viable industrial sector. Past growth and improvement in agriculture pave the way for establishment and growth of industries in developing countries. State should see that agricultural development precedes industrial development. Leading industrial countries of the world were once predominantly agricultural and it was the prosperous and expanding agriculture which formed the basis for the establishment and subsequent development of their manufacturing industry.

The agricultural sector can provide a large part of the sustenance of the growing urban population; it can supply a market for manufactured goods purchased out of higher

real income; and can serve as a source of capital for industry through the medium of capital accumulated by traders. Developed agriculture can help us in earning foreign exchange which can be used to pay for import of capital goods for manufacturing industry. It can also supply raw materials for a large number of agro-industries. Agriculture and industry may be competitive in the short run but will be complementary over a relatively long period. When objective is growth, particularly a growth which can sustain itself, it is the long run and not the short run which should be given prime consideration. Agriculture and industry are but twin sisters of a national economy. Therefore, State cannot afford to neglect agriculture if it wants to establish a viable industrial sector.

State should try not only for a balance between industrial and agricultural development but also for a balanced growth of industries. Balanced growth or simultaneous promotion of a group of selected inter-related branches of manufacturing industry is economically desirable. In case different manufacturing plants, producing a range of different goods, are set up together, the products of each one of the plants will have increased or enlarged demands. Not only that, the demands of the workers engaged in the group of plants will make good the missing market for the products of each of the plants. Hence, it is evident that whereas the isolated investment in a particular establishment alone is uneconomic and unprofitable, the co-ordinated investment in a balanced group of manufacturing activities is both economic and profitable. But to turn the dream of the establishment of a balanced group of manufacturing plants into a reality government intervention will be occasionally required. The case for such occasional intervention to encourage the said balanced growth will be justified only in special circumstances, that is, when industrialists fail to favourably respond to the schemes of balanced industrialisation. But care should be taken that the market possibilities of the scheme of balanced industrialisation are not over-estimated or their risks and costs under-estimated.

The State is to make a choice not only between balanced and unbalanced industrial growth but also between too optimistic programmes of industrialisation or deliberate industrialisation for higher incomes on the one hand and the policy of 'slow and steady wins the race' on the other. The problem of choice-making also refers to the making of choice between noticeable emphasis on heavy industries on the one hand and special stress on light industries on the other. State should guard against too optimistic programmes of industrialisation, which ignore the actual trends in the supply of domestic savings and foreign capital, the balance of payments problems and the inflationary danger. But difficulties are not really as great as is sometimes supposed. Broadly speaking, the process of industrialisation in the 19th and early 20th century developed along the principles of free enterprise and a common scale of values. The case of Russia forms an exception because the 'frenzied pace' and the 'ruthless execution' of planning and forced capital formation are not finding much favour elsewhere. Pioneer countries are generally in favour of evolutionary industrialisation combined with a moderate amount of deliberate industrialisation. Japan has proved that even in a generation a great deal can be done; and even without 'ruthless execution' of planning an all complete transformation of the 'mutable factors' can take place in a period nearer to two generations. Besides, a policy of evolutionary industrialisation with a moderate amount of deliberate industrialisation suits the democratic and socialistic trends of the time. As regards making of choice between heavy and light industries also, a compromise or a fine reconciliation between the two can be suggested. The first world war and the following depression were responsible for the creation of light or consumer goods industries in the under-developed areas and the second world war has been instrumental in turning the attention of developing areas towards heavy metal and engineering industries. Therefore, it cannot be suggested that in developing countries State should be concerned with the establishment and growth of only such industries which are capital-light, skill-light, labour-intensive, quick investment type and with high fruition-

co-efficient. As and when their resources permit they should leave no stone unturned to set up even heavy and basic industries if they are keen on having a viable industrial sector.

But, in developing countries, private enterprise often avoids making investment in basic and key industries and ordinarily prefers to make investment in consumer goods industries. Therefore, in developing countries, State should always be ready to rise to the occasion and set up basic and key industries in the public sector. Similarly, whenever and wherever nation's interest warrants the establishment of certain industries and private enterprise lags behind, State should come forward and fill in the gap. In developing countries, State can speed up capital formation in public sector by augmenting public savings. These can be augmented by resorting to high taxation, turnover taxes (of the U.S.S.R. type) and inflation. It has already been examined and analysed in detail how State can encourage investment in public and private sectors.

Importance of foreign aid—financial as well as technical—cannot be exaggerated in this connection. In developing countries State is under obligation to arrange foreign aid for both the sectors. Governmental guarantee makes the inflow of foreign aid comparatively quick and easy. As compared to private enterprise State is in an advantageous position to arrange foreign aid for public as well as private sector. A government which fails to take the fullest advantage of foreign experience and investment in the industrial development of the country needlessly deprives it of the prospect of comparatively rapid industrialisation. It has already been suggested how foreign financial and technical co-operation can be best attracted by the State in developing countries. It is needless to repeat these suggestions here. But it will not be out of place to mention here that in developing countries State should not shirk the responsibility of helping private enterprise in getting adequate foreign financial and technical aid. Governmental assistance to private sector industries in different forms can be justified in several ways.

Arguments for governmental assistance to industry in

private sector are not one but many. The Classicists argued that governmental assistance in the form of tariff protection, direct subsidisation or guarantees, *ceteris paribus*, results into a diversion of resources from more productive uses to less productive ones. They also argued that an industry which could not pay its way was a *prima facie* case of less efficient or productive industry than other industries or economic activities which did not require governmental assistance and could very well pay their way. But the case for government sponsored industrialisation or governmental assistance to industry is made out on arguments which claim that in certain circumstances the diversion of resources caused by governmental efforts and assistances is economically efficient and would not have taken place without governmental effort or assistance.

The popularly known infant industry argument in favour of governmental assistance to certain industries needs no elaboration. The keynote of this argument is that certain kinds of economic activities, more particularly industrial activities, at times, require governmental assistance in the early stages of their development. But once they are made to stand on their own legs they may become completely viable and may not be in need of governmental assistance at all. The logical validity of this argument is hardly assailable. Though, at times, it is argued that governmental assistance may never be withdrawn or the industry may welcome or even press for the retention of assistance even after the necessity is over. But this is no evidence of the misuse or misapplication of the infant industry argument.

On another ground also governmental assistance is advocated. In industrially backward or under-developed areas common facilities like developed transport and financial facilities, a tradition of industrial skill, and other external economics, which are available and enjoyed in developed areas even by new entrants to industrial sector, are conspicuous by their acute scarcity. For example in under-developed areas untrained labour has got to be trained and one may argue that the private industrialist should train the labour and bear the training cost because he will later on avail of the skill

of the trained labour. But in the name of justice and fairness it may very well be pointed out here that the private industrialist cannot be certain of the services of workers after they have been trained at his expense. So he cannot legitimately be expected to bear the training cost. Moreover all private industrialists rich or poor cannot be expected to be capable of incurring a considerable amount of expenditure on this item.

Still another argument in favour of governmental assistance to industry is that each and every industrialist cannot be expected to have his own labour-training centre or institute, his own full-fledged transport agency, his own financial institutions and all that. Such common facilities required by almost all industrialists should be made available by State. It is the best common authority which can and should look to such common needs of almost all private industrialists. This step is just in the public interest and no ulterior motive can be imputed to it.

One more argument in favour of governmental assistance is that, given judicious application of the policy of government assistance, there is a *prima facie* case for State assistance in the interest of a better and more efficient allocation of resources. As compared to scattered individual decisions, the decisions of State will be definitely superior so far as the interest of the whole economy is concerned. The State is better placed than an individual to consider the needs and requirements of the economy as a whole. Therefore, on the ground of better and more efficient allocation of resources a good case for government-sponsored industrialisation and governmental assistance can be made out. However, addicted dependence on government assistance is undesirable.

Before the close of this chapter, something must be said about how government industrial projects can be made more successful. Besides, something may be said (by way of warning to the State) about major errors in industrialisation, characteristics of sound industrial projects, and identification of white elephant projects. Then the chapter will be closed with a word about a pattern of industrial deve-

lopment.

Government industrial projects can be turned more successful by strict adherence to the three important principles of—genuine autonomy, incentives, and profitability. Principle of genuine autonomy warrants that the autonomy of government industrial projects should be real rather than imaginary. Even if these projects are managed by public corporations, for various reasons, they are managed on the basis of 'old boys' relationship. Even these public corporations are by and large managed by present and former civil servants, who ensure that everything will be done by them in their own way (that is, on the basis of 'old boys' relationship). Ministers too, for fear of being caught on the floor of the 'House' for some of their instructions and orders, prefer private accountability to public accountability. They resort to backdoor methods of giving verbal and informal instructions and orders to the management boards. The boards also consider too much of written and formal instructions as a reflection on them. So they also prefer private accountability to public accountability. It is not the proper context to discuss the manifold reasons for which the ministers and the management-boards prefer private accountability to public accountability. What is relevant here is that due to this private accountability or due to the excess of even public accountability autonomy of government industrial projects is considerably curtailed. Besides, the ministers and their departments are often enormously reluctant to surrender any part of their connection with the projects. There is too much of centralisation in government industrial projects and whatever, autonomy is there is at best imaginary. In absence of managerial freedom and real autonomy we cannot even dream of business flexibility (in government industrial projects) which is so necessary for the success of commercial and industrial undertakings. Regular periodic review of results, owners' (government's in case of government industrial projects) right to question the directors and through them the general manager, their right to ultimate

remedy to change the directors and directors' right to question and even to remove the general manager will largely ensure the desirable extent of control. It is no use preventing the general manager, the chief executive, from being the real head of the industrial enterprise. He must have the requisite power to hire and fire people quite independently and to manage the day-to-day affairs in his own way.

As regards the principle of incentives it may be said that there ought to be a suitably designed scheme of providing incentives in each and every public sector industrial concern. The management should have not only the power to hire and fire people but also to decide and execute a suitable scheme of incentives. The pay and other emoluments of the management staff and top executives should be closely connected and allowed to vary with the amount of profits or surplus reaped by the government industrial projects. At least a part of the management fee of the foreign management team should be paid as a certain percentage of the net profits or surplus earned by the government industrial projects. In nut-shell, everybody from top to bottom in these projects should be judged by his net performance and contribution to the project concerned. Incentives should be adequate, timely and for each level.

The principle of profitability is also of much use in making government industrial projects more successful. It is not necessary that all of them should be run on a no-profit and no-loss basis. It is not enough that they are able to pay their own way. They should not only stand on their own legs but should also justify their existence by making approximately as much contribution to the general budget of the country as its counterpart in the private sector would have made to its owner. Allowance, no doubt, has to be made in case of government industrial projects for social returns. But plea of social return should not be allowed to supply a cover for inefficiency of public sector projects. Like private industrial and commercial concerns, even public sector projects should be judged by their performance. Hence, the principle of

profitability should by and large be applicable to the public sector industrial projects also. Adherence to this principle will compel government industrial projects to be more efficient and successful.

Coming to the analysis of major errors in industrialisation it can very well be remarked that the list of major errors into which the ignoring of profit ranks first is long. Separately, each one of them can be justified on one non-economic ground or the other (varying from human charity to defence) but all of them taken together are largely responsible for keeping the people of Asia in poverty, squalor, and ignorance for longer than necessary. Often major errors take place when projects are started on grounds other than economic and technical. Considerations of national pride and politics often blur the economic considerations. In order to avoid this major error care should be taken that in public sector only such projects are set up which are found economically, technically and financially feasible by a team of impartial and qualified experts.

An unsound direction to industrialisation is almost certain to result from serious errors in industrial and other allied policies of the government. For instance, if undue and unnecessary tariff protection is given by the government, almost certainly some unsound projects will crop up in the private sector. Ordinarily, private enterprise goes only for projects which are not only economically, technically and commercially sound but are also in line with public wants.

Economically unsound trends in industrialisation are likely to develop also if an undue stress is laid on the principle of self-sufficiency, which is a sensible guide only up to a limited extent. But this major error in industrialisation can be easily avoided if State is able to decide at which point there will be compromise between the conflicting claims of self-sufficiency and international specialisation. The principle of international specialisation is a more universal principle and by giving due weight to it each country will gain because it will make things in which it has a relative cost advantage and will trade them internationally to pay for products in which other

countries have a relative cost advantage.

Another major error in industrialisation often emanates from small and poor nations, insane fancy or craze to copy big and rich nations. Often poor and small nations too attempt to have too many large and complex industries too fast. But they fail to realise that what makes economic sense in a large rich country may prove to be economic nonsense in a comparatively small poor country. Similarly, what is essential at one stage of development may be premature at another. A safe course in the beginning is to start from small to large and from simple to complex industries. This will not, however, be applicable at an advance stage of industrialisation.

Often industries are started on the ground of availability of the cheap raw material inside the country. But an unsound direction to industrialisation is almost certain to result if this is allowed to be the sole consideration for establishing an industry. It is advisable to analyse the probable costs of production to find out how much of the production cost is attributable to the raw material and how the cost of raw material locally compares to its cost outside.

Similarly, prospect of using up idle labour force of the country is often considered to be a good ground for setting up industries. But the strength of this argument also is to be tested in the above manner.

Major blunders in launching unsound projects will be fewer if State tries to avoid the major errors in industrialisation and also attempts to keep itself away from the establishment of a costly and embarrassing family of white elephant projects.

What are these white-elephant projects and how to identify them? Unsound projects are popularly known as white-elephant projects. It is comparatively easy to identify them because they are not disguised. Often white-elephant projects are not economically, technically and financially sound. Sometimes they are over-ambitious, extremely fancy and unnecessarily risky. Often their management is inexperienced, unreliable and risky. At times they do not have market of sufficient size. Frequently they appear to be attractive only

because of tariff protection. But it is not enough that State is able to identify the white-elephant projects. It is equally important to know the characteristics of sound industrial projects.

Sound industrial projects are usually economically, technically and financially sound. Besides, they are able to produce early profits both for the investor and the economy. They also fit in with the long-term economic trends and needs of the economy. They do have demand or market for their products, provided they conform to reasonable standards of quality and price. Admittedly they must have at least as favourable a production-plus-delivery cost as their competitors. Some of them have even a prospective advantage in production costs compared to their domestic and foreign competitors.

The chapter may now be concluded with a word about a suitable pattern for industrial development of developing countries. The argument that the base for economic development in general and industrial development in particular is heavy industry is true for the world as a whole rather than for an individual country. Particularly for small developing countries this is a dangerously misleading idea. It is cheaper and advisable for them to import needed products of heavy industries from industrially advanced countries which can make them economically for international market. Not only small developing countries but also big developing countries will do well to start industrialisation initially with a small number of sound industrial projects. Eventually a large and significant part of an expanded national economy may grow out of this small area of limited viable industrial projects. After sometime the big developing countries can go for even heavy industries but small ones will do well to depend on industrially developed ones for the products of heavy industries.

As regards the choice of industries in the beginning it may be suggested that such industries should be started first which can process further and thereby increase the value of products already being manufactured for export. Simultaneously,

efforts can continue to set up such industries which can produce economically goods which are already being imported in large quantities from foreign countries. Even beyond these two areas it may be occasionally possible to find out some sound industrial projects. The problem of finding out a suitable pattern for industrial development ceases to be a serious problem after a country succeeds in establishing a viable industrial sector and in reaching the stage of self-sustained growth.

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